SONY®

VTR IN CAMERA

BVW-400A

BETACAM SP

MAINTENANCE MANUAL
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Serial No. 10001 and Higher (USA CANADA)

BVW-400A (J)
BVW-400A (UC) J, E
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Sony Corporation
Communication System Solutions Network Company

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To reduce the risk of electric shock, fire or injury, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

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NOTE :

The names of some boards have been changed. In this manual old names may be read as new names according to the following table. However, the adjustment procedures and specifications, etc. remain as described in this manual.

BOARD CHANGE INFORMATION OLD NAME ⇨ NEW NAME	SERIAL NUMBER
PS-162 ⇨ PS-162B	30181 AND HIGHER : J 10148 AND HIGHER : UC 40316 AND HIGHER : EK
TC-48A ⇨ TC-48B TC-48AP ⇨ TC-48BP	
SW-291 ⇨ SW-291A	30216 AND HIGHER : J 10158 AND HIGHER : UC 40361 AND HIGHER : EK

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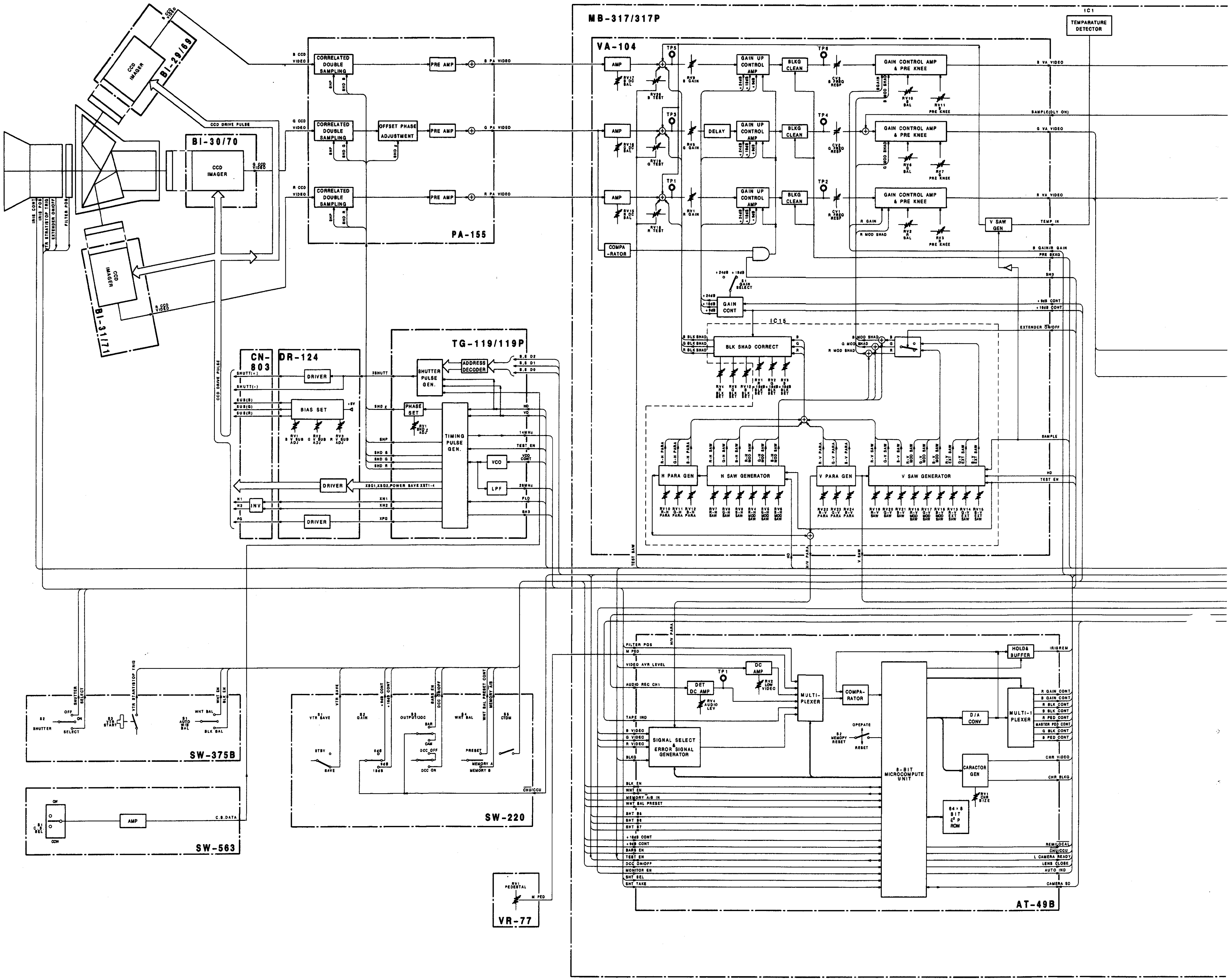
30001 through 30030(J)
40001 through 40031(EK)
BI-69/70/71 Boards
S/N; 10028 and higher(UC)
30031 and higher(J)
40032 and higher(EK)



BI-29/69
CCD IMAGER
BI-30/70
CCD IMAGER
BI-31/71
CCD IMAGER
CCD DRIVE PULSE
B CCD VIDEO
G CCD VIDEO
R CCD VIDEO
IRIS CONT
IRIS POS
VTR START/STOP TRIG
EXTENDER ON/OFF
FILTER POS
CORRELATED DOUBLE SAMPLING
OFFSET PHASE ADJUSTMENT
PRE AMP
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G PA VIDEO
R PA VIDEO
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MB-317/317P
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AMP
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TP2
TP3
TP4
TP5
TP6
DELAY
GAIN UP CONTROL AMP
BLKG CLEAN
GAIN CONTROL AMP & PRE KNEE
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G VA VIDEO
R VA VIDEO
SAMPLE(DLY ON)
COMPA-RATOR
GAIN CONT
GAIN SELECT
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TEMPARATURE DETECTOR
V SAW GEN
TEMP IN
B GAIN/R GAIN
PRE BLKG
EXTENDER ON/OFF
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BLK SHAD CORRECT
H PARA GEN
H SAW GENERATOR
V PARA GEN
V SAW GENERATOR
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HD
TEST EN
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BIAS SET
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SHUTTER PULSE GEN.
ADDRESS DECODER
PHASE SET
TIMING PULSE GEN.
VCO
LPF
SW-375B
SHUTTER SELECT
VTR START/STOP TRIG
WHT BAL
BLK BAL
SW-563
AMP
C.B.DATA
SW-220
VTR SAVE
GAIN
OUTPUT/DCC
WHT BAL
CTOM
CHU/CCU
VR-77
RV1 PEDESTAL
M PED
FILTER POS
VIDEO AVR LEVEL
AUDIO REC CH1
TAPE IND
DET DC AMP
DC AMP
MULTI-PLEXER
COMPA-RATOR
HOLD& BUFFER
IRISREM
SIGNAL SELECT & ERROR SIGNAL GENERATOR
8-BIT MICROCOMPUTE UNIT
MEMORY RESET
D/A CONV
MULTI-PLEXER
CARACTOR GEN
64×8 BIT E²P ROM
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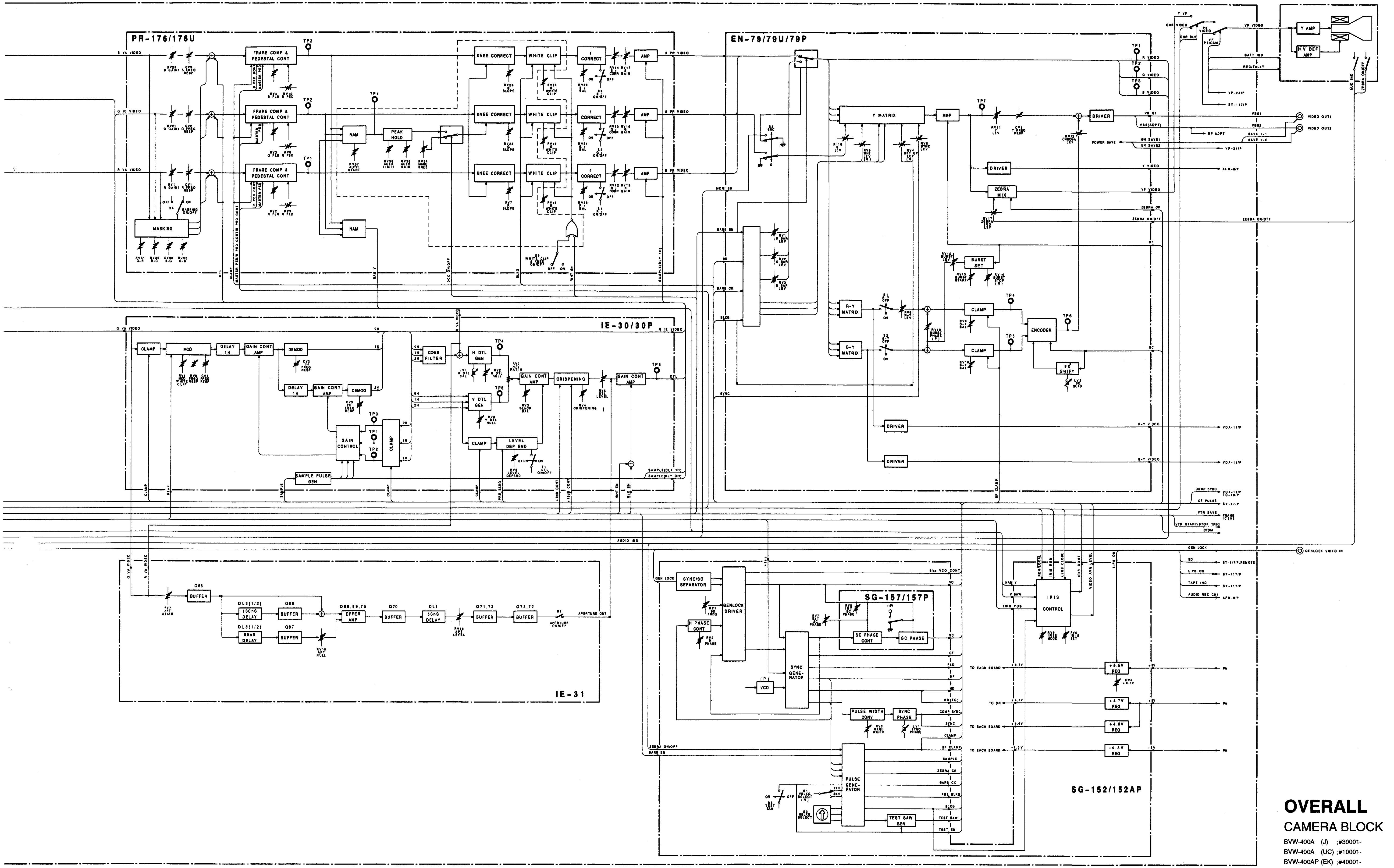
B GAIN CONT
R BLK CONT
B BLK CONT
R PED CONT
MASTER PED CONT
G BLK CONT
B PED CONT
CHR VIDEO
CHR BLKG
REM/LOCAL
CHU/CCU
L CAMERA READY
LENS CLOSE
AUTO IND
CAMERA SD
AT-49B
1
2
3
4
5
A
B
C
D
E
F
G
H


PR-176/176U
FRAME COMP & PEDESTAL CONT
MASKING
NAM
PEAK HOLD
KNEE CORRECT
WHITE CLIP
γ CORRECT
AMP
B PR VIDEO
G PR VIDEO
R PR VIDEO
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ZEBRA MIX
BURST SET
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+4.7V REG
+4.8V REG
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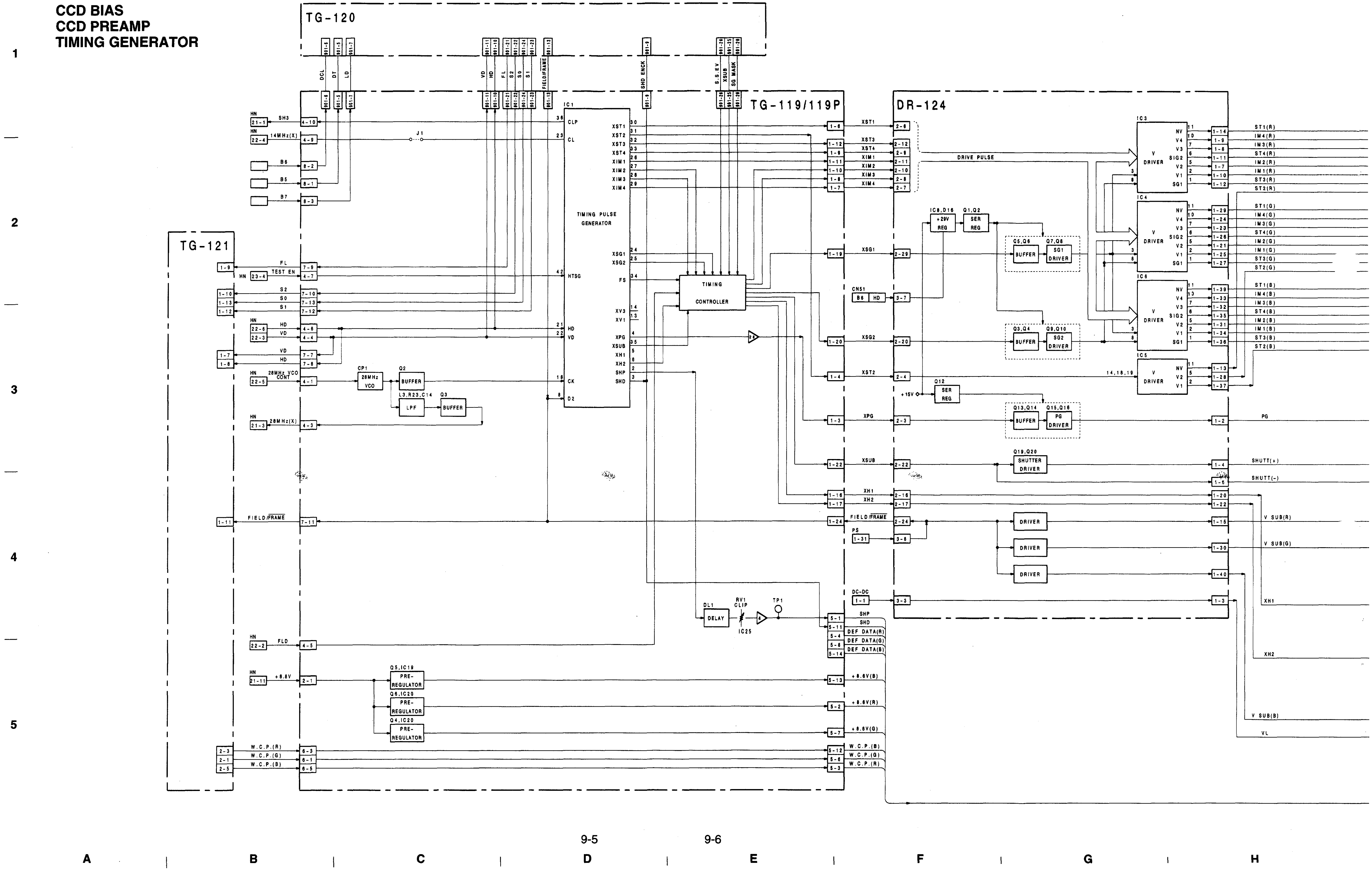
1
2
3
4
5
I
J
K
L
M
N
O
P

OVERALL
CAMERA BLOCK

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

CCD DRIVER
CCD BIAS
CCD PREAMP
TIMING GENERATOR


1
2
3
4
5
TG-120
DCL
DT
LD
VD
HD
FL
S2
S0
S1
FIELD/FRAME
SHD ENCK
S.S.EV
XSUB
SG MASK
TG-119/119P
IC1
TIMING PULSE GENERATOR
CLP
CL
HTSG
HD
VD
CK
D2
XST1
XST2
XST3
XST4
XIM1
XIM2
XIM3
XIM4
XSG1
XSG2
FS
XV3
XV1
XPG
XSUB
XH1
XH2
SHP
SHD
TIMING CONTROLLER
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14MHz(X)
B6
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B7
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CP1
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LPF
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BUFFER
28MHz(X)
FLD
+8.8V
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PRE-REGULATOR
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PRE-REGULATOR
Q4,IC20
PRE-REGULATOR
W.C.P.(R)
W.C.P.(G)
W.C.P.(B)
DL1
DELAY
RV1
CLIP
IC25
TP1
J1
DEF DATA(R)
DEF DATA(G)
DEF DATA(B)
+8.8V(B)
+8.8V(R)
+8.8V(G)
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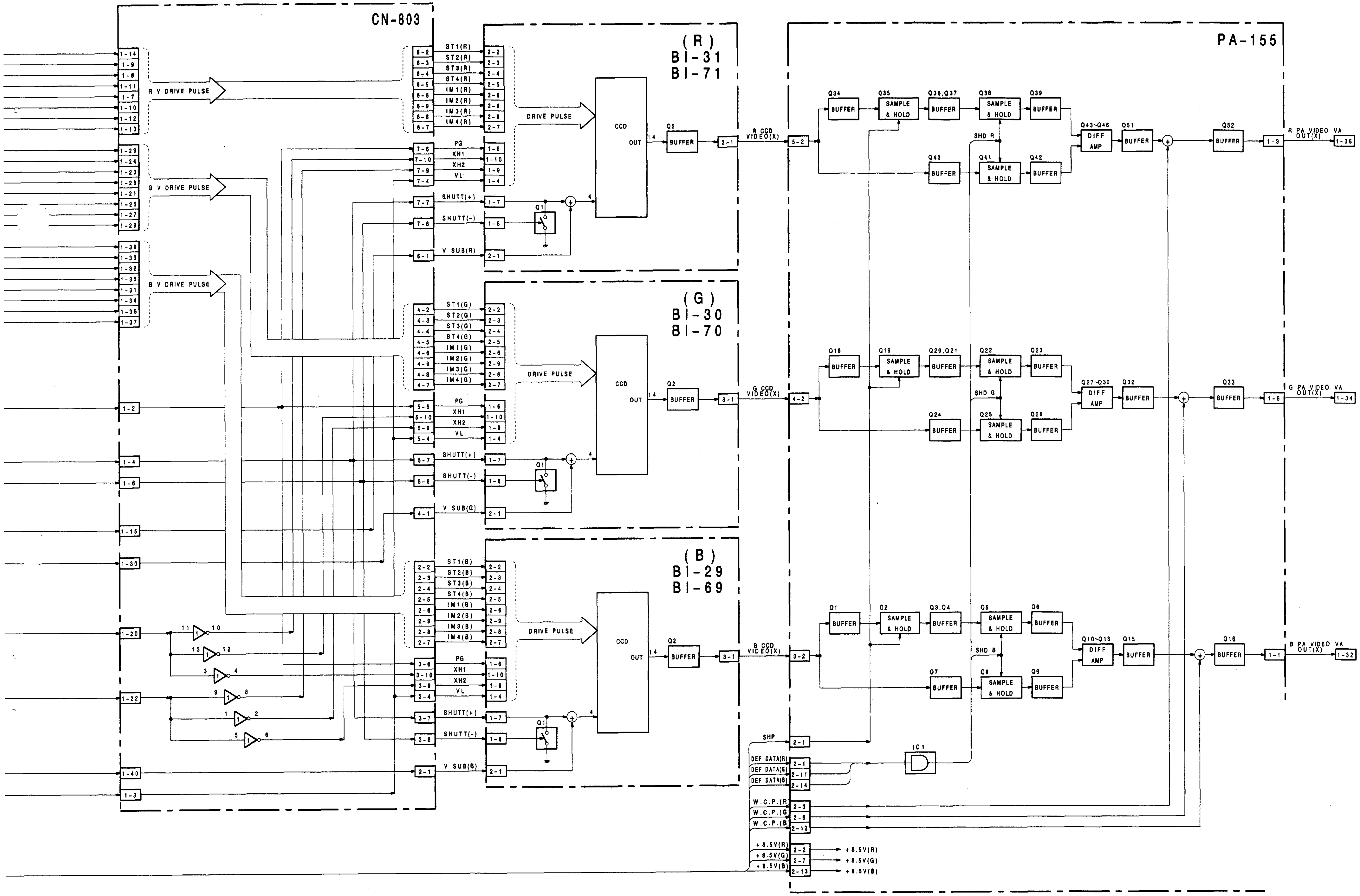
DRIVE PULSE
IC8,D16
+29V REG
Q1,Q2
SER REG
Q5,Q6
BUFFER
Q7,Q8
SG1 DRIVER
Q3,Q4
BUFFER
Q9,Q10
SG2 DRIVER
Q12
SER REG
+15V
Q13,Q14
BUFFER
Q15,Q16
PG DRIVER
Q19,Q20
SHUTTER DRIVER
DRIVER
CN51
PS
DC-DC
IC3
IC4
IC6
IC5
V DRIVER
NV
V4
V3
SIG2
V2
V1
SG1
ST1(R)
IM4(R)
IM3(R)
ST4(R)
IM2(R)
IM1(R)
ST3(R)
ST2(R)
ST1(G)
IM4(G)
IM3(G)
ST4(G)
IM2(G)
IM1(G)
ST3(G)
ST2(G)
ST1(B)
IM4(B)
IM3(B)
ST4(B)
IM2(B)
IM1(B)
ST3(B)
ST2(B)
PG
SHUTT(+)
SHUTT(-)
V SUB(R)
V SUB(G)
V SUB(B)
XH1
XH2
VL
A
B
C
D
E
F
G
H

Note: BI-29/30/31
S/N; 10001-10027(UC)
30001-30030(J)
40001-40031(EK)
S/N; 10028 and higher(UC)
30031 and higher(J)
40032 and higher(EK)

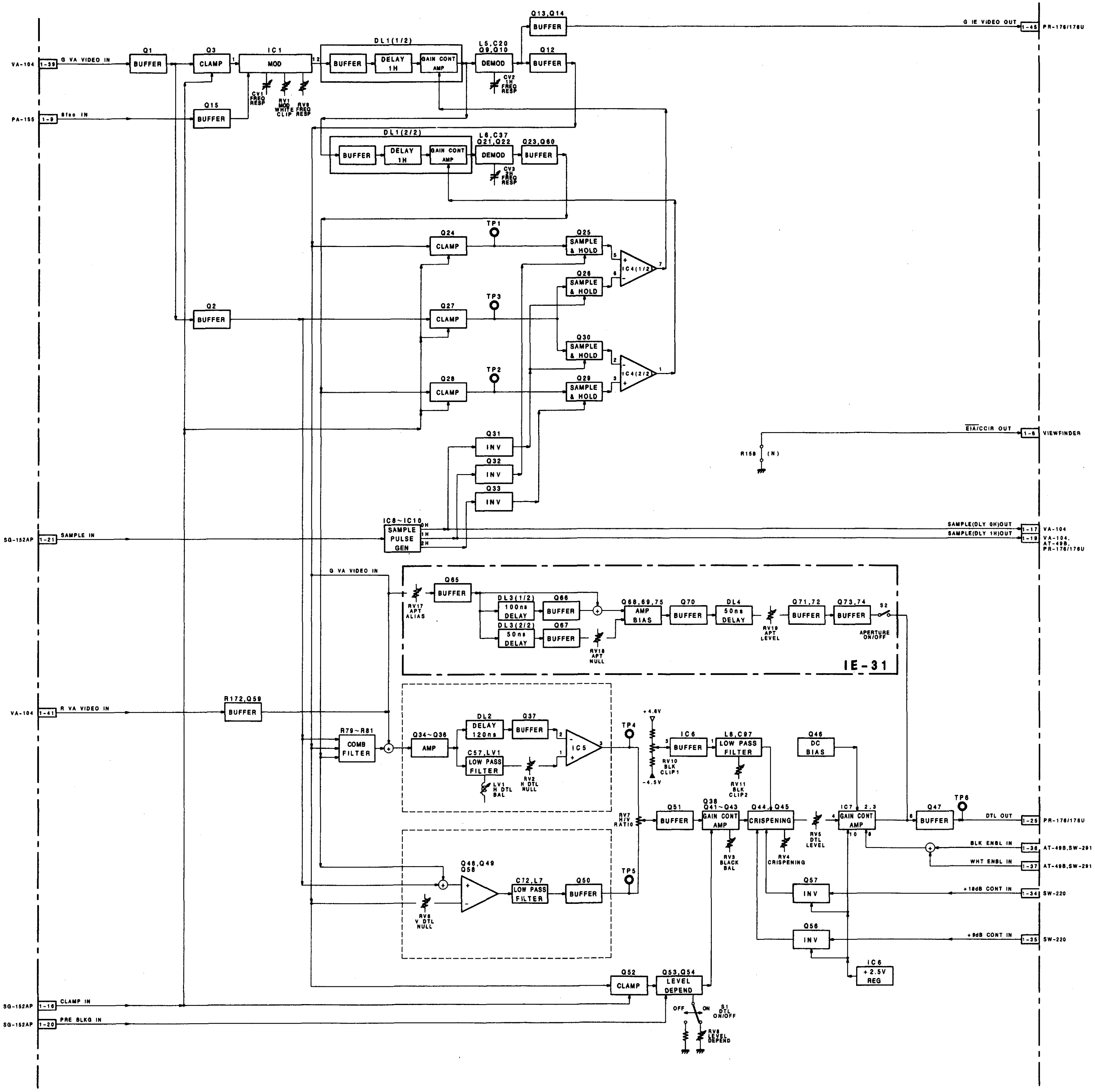


CN-803
R V DRIVE PULSE
G V DRIVE PULSE
B V DRIVE PULSE
(R) BI-31 BI-71
(G) BI-30 BI-70
(B) BI-29 BI-69
ST1(R) ST2(R) ST3(R) ST4(R) IM1(R) IM2(R) IM3(R) IM4(R)
ST1(G) ST2(G) ST3(G) ST4(G) IM1(G) IM2(G) IM3(G) IM4(G)
ST1(B) ST2(B) ST3(B) ST4(B) IM1(B) IM2(B) IM3(B) IM4(B)
PG XH1 XH2 VL
SHUTT(+) SHUTT(-)
V SUB(R) V SUB(G) V SUB(B)
DRIVE PULSE
CCD
OUT
Q1
Q2
BUFFER
R CCD VIDEO(X)
G CCD VIDEO(X)
B CCD VIDEO(X)
PA-155
Q34 BUFFER
Q35 SAMPLE & HOLD
Q36,Q37 BUFFER
Q38 SAMPLE & HOLD
Q39 BUFFER
Q40 BUFFER
Q41 SAMPLE & HOLD
Q42 BUFFER
SHD R
Q43~Q46 DIFF AMP
Q51 BUFFER
Q52 BUFFER
R PA VIDEO OUT(X)
Q18 BUFFER
Q19 SAMPLE & HOLD
Q20,Q21 BUFFER
Q22 SAMPLE & HOLD
Q23 BUFFER
Q24 BUFFER
Q25 SAMPLE & HOLD
Q26 BUFFER
SHD G
Q27~Q30 DIFF AMP
Q32 BUFFER
Q33 BUFFER
G PA VIDEO OUT(X)
Q1 BUFFER
Q2 SAMPLE & HOLD
Q3,Q4 BUFFER
Q5 SAMPLE & HOLD
Q6 BUFFER
Q7 BUFFER
Q8 SAMPLE & HOLD
Q9 BUFFER
SHD B
Q10~Q13 DIFF AMP
Q15 BUFFER
Q16 BUFFER
B PA VIDEO OUT(X)
VA
SHP
DEF DATA(R) DEF DATA(G) DEF DATA(B)
IC1
W.C.P.(R) W.C.P.(G) W.C.P.(B)
+8.5V(R) +8.5V(G) +8.5V(B)

CCD-BLOCK

BI-29/30/31
BI-69/70/71
CN-803
DR-124
PA-155
TG-119/119P
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

IMAGE ENHANCER


1
2
3
4
5
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IC1 MOD
CV1 FREQ RESP
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Q66 BUFFER
DL3(2/2) 50ns DELAY
Q67 BUFFER
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OFF ON
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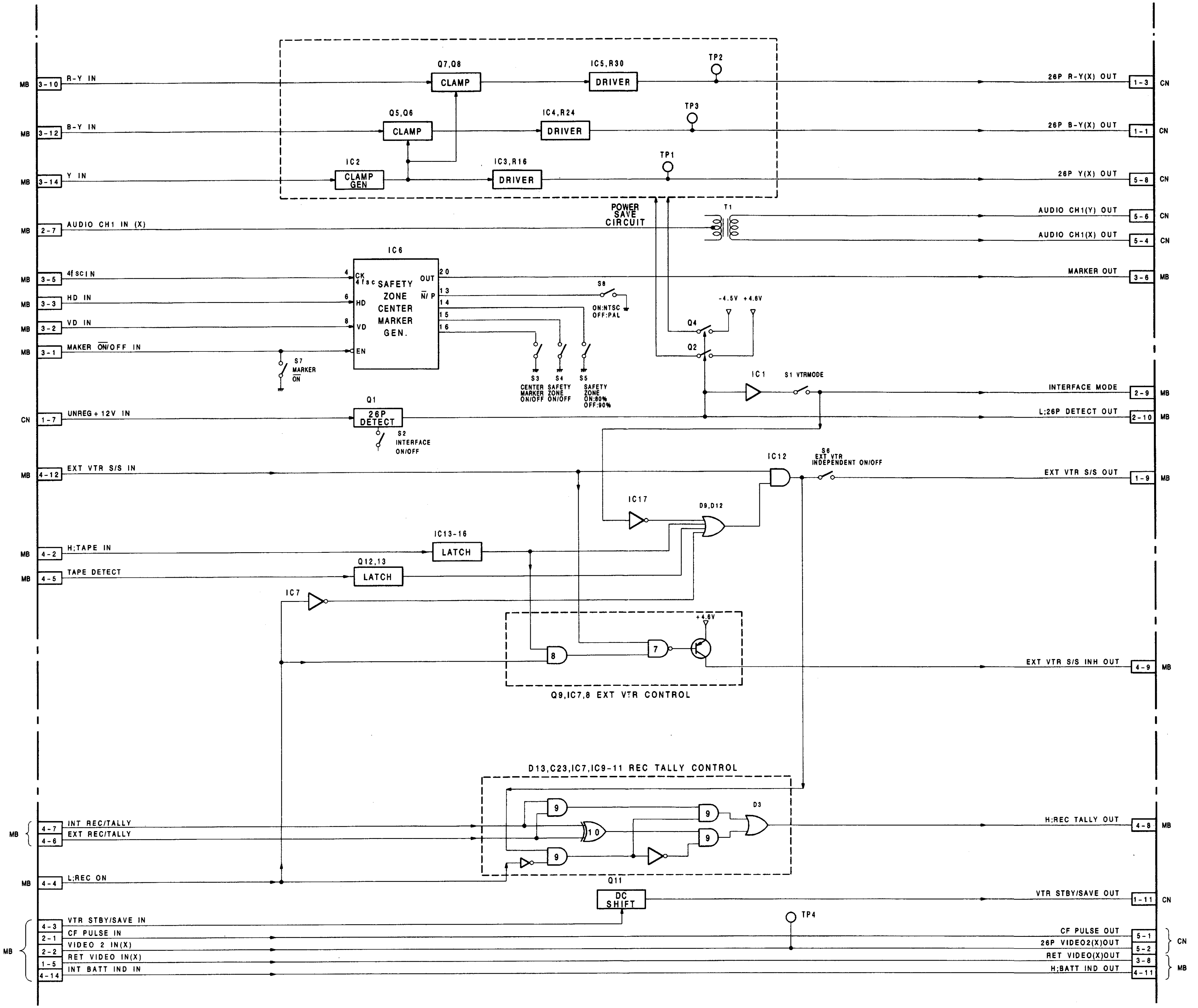
A B C D E F G H

IE-30/30P
IE-31

CAMERA BLOCK

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

INTERFACE


MB 3-10 R-Y IN
MB 3-12 B-Y IN
MB 3-14 Y IN
MB 2-7 AUDIO CH1 IN (X)
MB 3-5 4fSC IN
MB 3-3 HD IN
MB 3-2 VD IN
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MB 4-12 EXT VTR S/S IN
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Q5,Q6 CLAMP
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IC5,R30 DRIVER
IC4,R24 DRIVER
IC3,R16 DRIVER
TP2
TP3
TP1
POWER SAVE CIRCUIT
T1
IC6
CK 4fsc
HD
VD
EN
SAFETY ZONE CENTER MARKER GEN.
OUT
N/P
20
13
14
15
16
S7 MARKER ON
S8 ON:NTSC OFF:PAL
S3 CENTER MARKER ON/OFF
S4 SAFETY ZONE ON/OFF
S5 SAFETY ZONE ON:80% OFF:90%
-4.5V +4.6V
Q4
Q2
IC1
S1 VTRMODE
Q1 26P DETECT
S2 INTERFACE ON/OFF
IC12
S6 EXT VTR INDEPENDENT ON/OFF
IC17
D9,D12
IC13-16 LATCH
Q12,13 LATCH
IC7
+4.6V
8
7
Q9,IC7,8 EXT VTR CONTROL
D13,C23,IC7,IC9-11 REC TALLY CONTROL
9
10
D3
Q11 DC SHIFT
TP4
26P R-Y(X) OUT 1-3 CN
26P B-Y(X) OUT 1-1 CN
26P Y(X) OUT 5-8 CN
AUDIO CH1(Y) OUT 5-6 CN
AUDIO CH1(X) OUT 5-4 CN
MARKER OUT 3-6 MB
INTERFACE MODE 2-9 MB
L;26P DETECT OUT 2-10 MB
EXT VTR S/S OUT 1-9 MB
EXT VTR S/S INH OUT 4-9 MB
H;REC TALLY OUT 4-8 MB
VTR STBY/SAVE OUT 1-11 CN
CF PULSE OUT 5-1
26P VIDEO2(X)OUT 5-2 CN
RET VIDEO(X)OUT 3-8
H;BATT IND OUT 4-11 MB

1

2

3

4

5

IF-298AJ/298A

BLOCK

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

VIDEO AMP, BLACK SET, COMPE

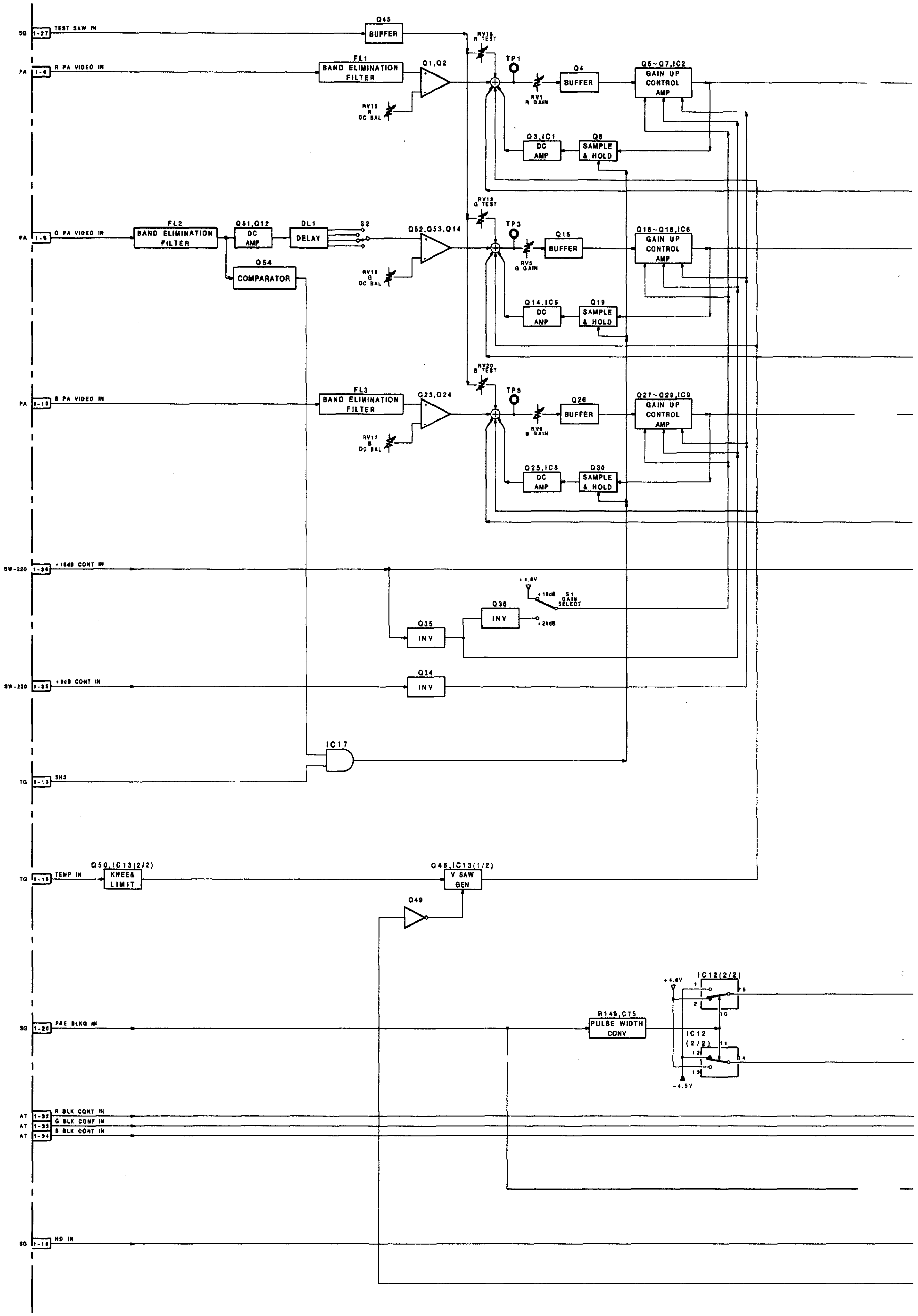
1

2

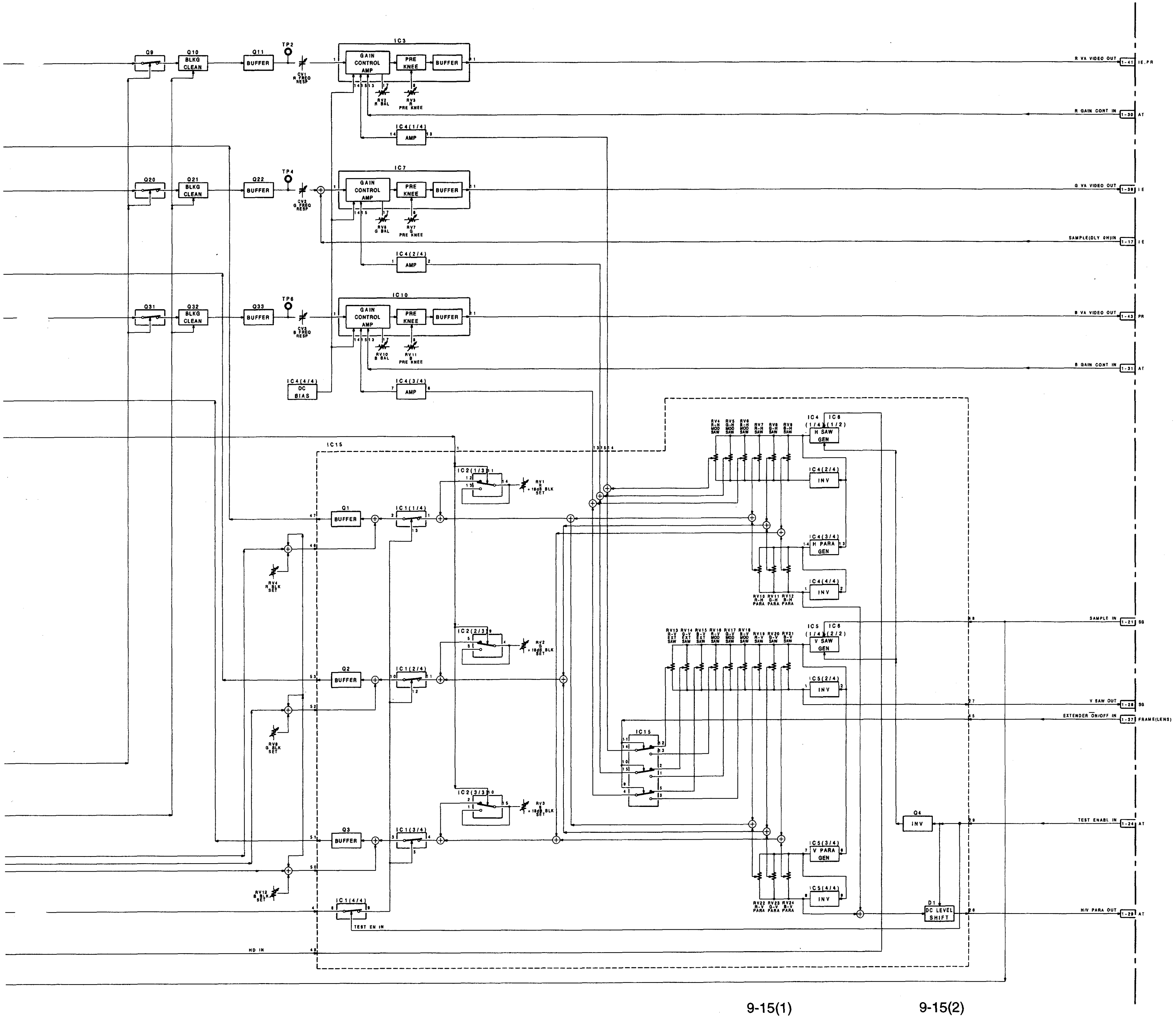
3

4

5


SG
1-27
TEST SAW IN
Q45
BUFFER
PA
1-8
R PA VIDEO IN
FL1
BAND ELIMINATION FILTER
Q1,Q2
RV15 R DC BAL
RV18 R TEST
TP1
RV1 R GAIN
Q4
BUFFER
Q5~Q7,IC2
GAIN UP CONTROL AMP
Q3,IC1
DC AMP
Q8
SAMPLE & HOLD
PA
1-6
G PA VIDEO IN
FL2
BAND ELIMINATION FILTER
Q51,Q12
DC AMP
DL1
DELAY
S2
Q54
COMPARATOR
Q52,Q53,Q14
RV16 G DC BAL
RV19 G TEST
TP3
RV5 G GAIN
Q15
BUFFER
Q16~Q18,IC6
GAIN UP CONTROL AMP
Q14,IC5
DC AMP
Q19
SAMPLE & HOLD
PA
1-10
B PA VIDEO IN
FL3
BAND ELIMINATION FILTER
Q23,Q24
RV17 B DC BAL
RV20 B TEST
TP5
RV9 B GAIN
Q26
BUFFER
Q27~Q29,IC9
GAIN UP CONTROL AMP
Q25,IC8
DC AMP
Q30
SAMPLE & HOLD
SW-220
1-36
+18dB CONT IN
+4.6V
+18dB
S1 GAIN SELECT
+24dB
Q36
INV
Q35
INV
SW-220
1-35
+9dB CONT IN
Q34
INV
IC17
TG
1-13
SH3
TG
1-15
TEMP IN
Q50,IC13(2/2)
KNEE& LIMIT
Q48,IC13(1/2)
V SAW GEN
Q49
+4.6V
IC12(2/2)
1
2
15
10
R149,C75
PULSE WIDTH CONV
IC12 (2/2)
11
12
13
14
-4.5V
SG
1-26
PRE BLKG IN
AT
1-32
R BLK CONT IN
AT
1-33
G BLK CONT IN
AT
1-34
B BLK CONT IN
SG
1-16
HD IN

A B C D E F G H


Q9
Q10
BLKG CLEAN
Q11
BUFFER
TP2
CV1 R FREQ RESP
IC3
GAIN CONTROL AMP
PRE KNEE
BUFFER
RV2 R BAL
RV3 R PRE KNEE
IC4(1/4)
AMP
Q20
Q21
BLKG CLEAN
Q22
BUFFER
TP4
CV2 G FREQ RESP
IC7
GAIN CONTROL AMP
PRE KNEE
BUFFER
RV6 G BAL
RV7 G PRE KNEE
IC4(2/4)
AMP
Q31
Q32
BLKG CLEAN
Q33
BUFFER
TP6
CV3 B FREQ RESP
IC10
GAIN CONTROL AMP
PRE KNEE
BUFFER
RV10 B BAL
RV11 B PRE KNEE
IC4(4/4)
DC BIAS
IC4(3/4)
AMP
IC15
IC2(1/3)
RV1 R +18dB BLK SET
Q1
BUFFER
IC1(1/4)
RV4 R BLK SET
IC2(2/3)
RV2 G +18dB BLK SET
Q2
BUFFER
IC1(2/4)
RV8 G BLK SET
IC2(3/3)
RV3 B +18dB BLK SET
Q3
BUFFER
IC1(3/4)
RV12 B BLK SET
IC1(4/4)
TEST EN IN
HD IN
RV4 R-H MOD SAW
RV5 G-H MOD SAW
RV6 B-H MOD SAW
RV7 R-H SAW
RV8 G-H SAW
RV9 B-H SAW
IC4 IC6 (1/4) (1/2)
H SAW GEN
IC4(2/4)
INV
IC4(3/4)
H PARA GEN
IC4(4/4)
INV
RV10 R-H PARA
RV11 G-H PARA
RV12 B-H PARA
RV13 R-Y EXT SAW
RV14 G-Y EXT SAW
RV15 B-Y EXT SAW
RV16 R-V MOD SAW
RV17 G-V MOD SAW
RV18 B-V MOD SAW
RV19 R-V SAW
RV20 G-V SAW
RV21 B-V SAW
IC5 IC6 (1/4) (2/2)
V SAW GEN
IC5(2/4)
INV
IC15
IC5(3/4)
V PARA GEN
IC5(4/4)
INV
RV22 R-V PARA
RV23 G-V PARA
RV24 B-V PARA
Q4
INV
D1
DC LEVEL SHIFT
R VA VIDEO OUT
1-41
IE,PR
R GAIN CONT IN
1-30
AT
G VA VIDEO OUT
1-39
IE
SAMPLE(DLY 0H)IN
1-17
IE
B VA VIDEO OUT
1-43
PR
B GAIN CONT IN
1-31
AT
SAMPLE IN
1-21
SG
V SAW OUT
1-26
SG
EXTENDER ON/OFF IN
1-37
FRAME(LENS)
TEST ENABL IN
1-24
AT
H/V PARA OUT
1-29
AT

1

2

3

4

5

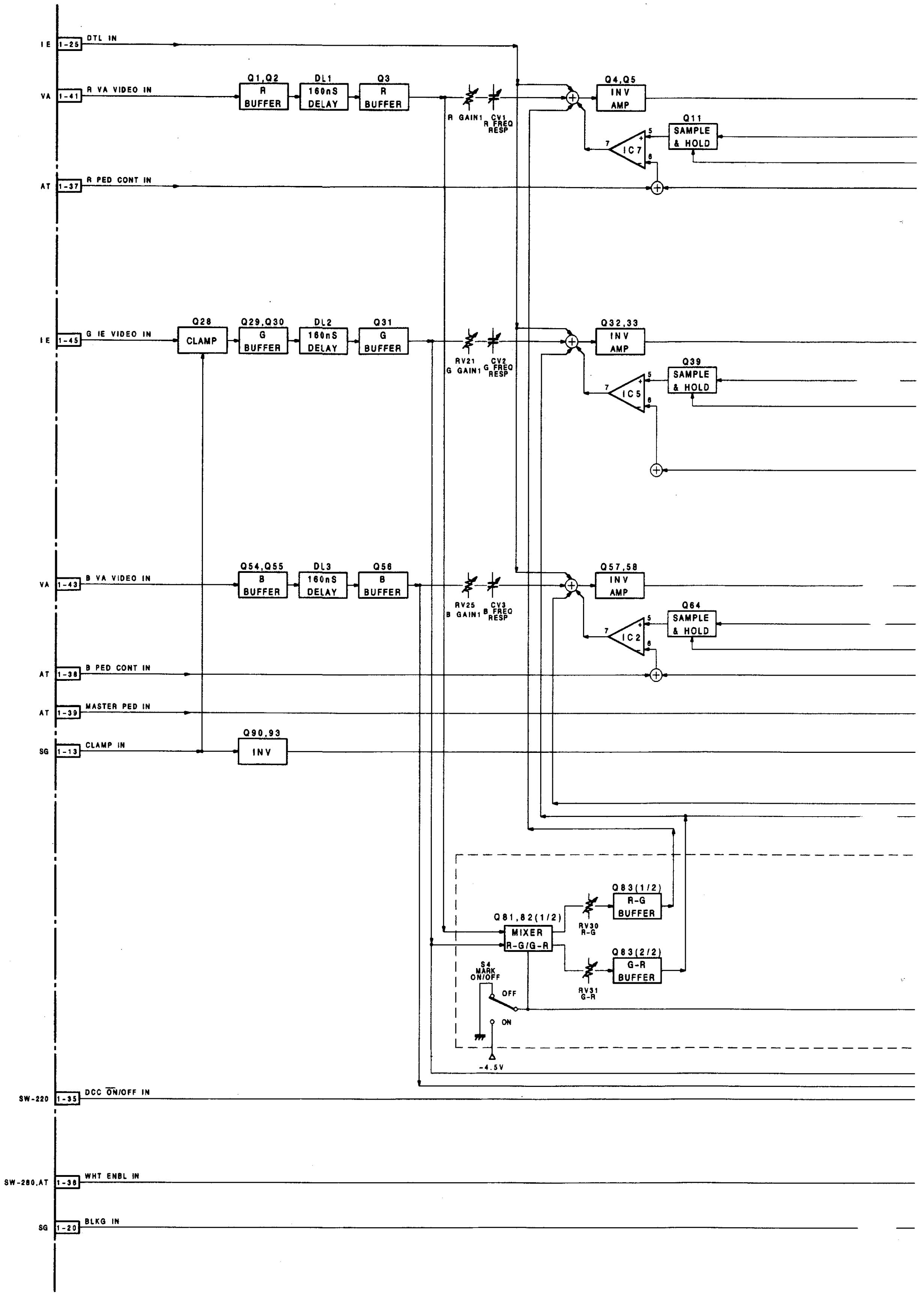
VA-104

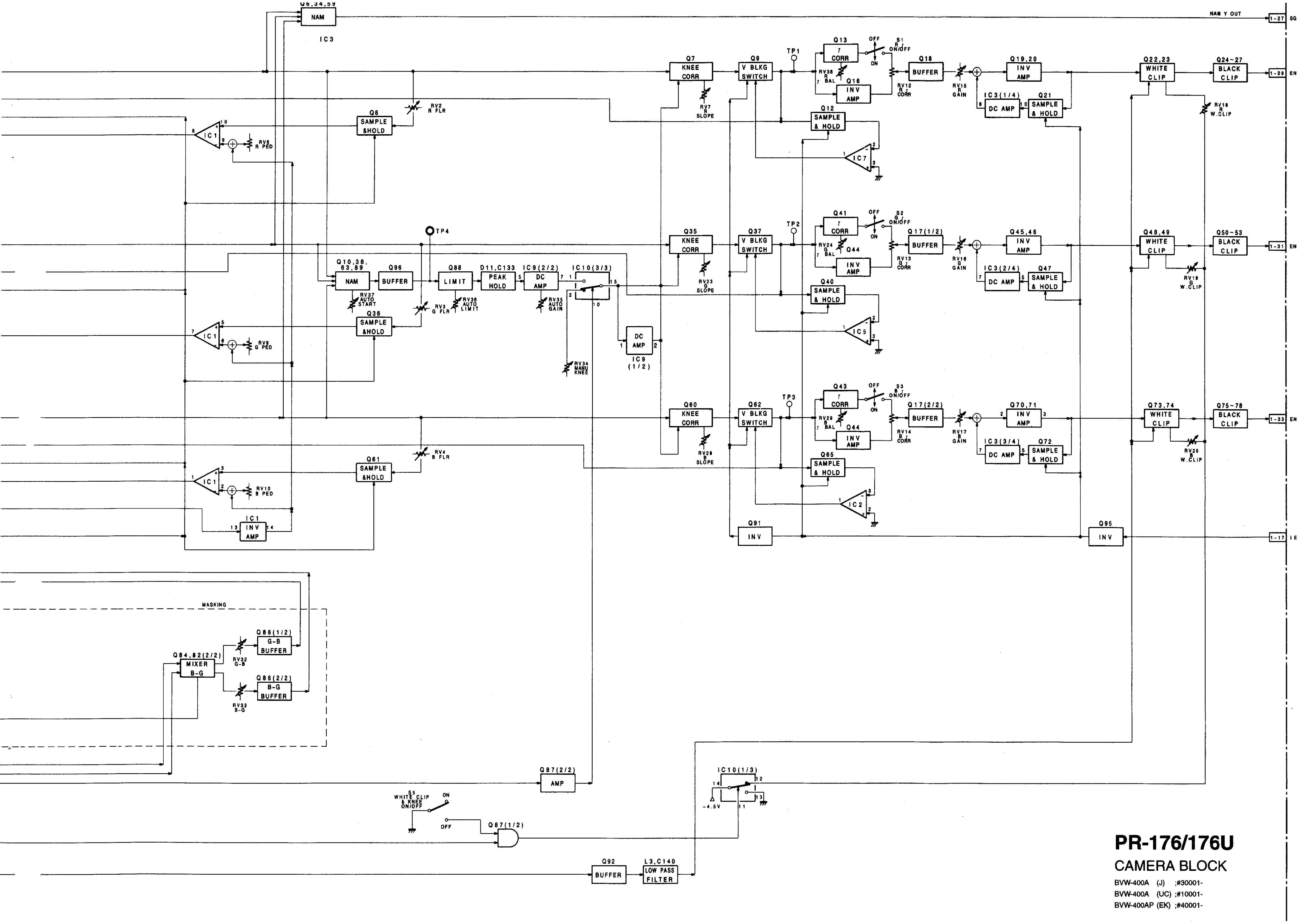
CAMERA BLOCK

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

I J K L M N O P

GAMMA, MASKING, KNEE, SLOPE, W CLIP, DCC


IE 1-25 DTL IN
VA 1-41 R VA VIDEO IN
Q1,Q2 R BUFFER
DL1 160nS DELAY
Q3 R BUFFER
R GAIN1
CV1 R FREQ RESP
Q4,Q5 INV AMP
Q11 SAMPLE & HOLD
IC7
7
5
6
AT 1-37 R PED CONT IN
IE 1-45 G IE VIDEO IN
Q28 CLAMP
Q29,Q30 G BUFFER
DL2 160nS DELAY
Q31 G BUFFER
RV21 G GAIN1
CV2 G FREQ RESP
Q32,33 INV AMP
Q39 SAMPLE & HOLD
IC5
VA 1-43 B VA VIDEO IN
Q54,Q55 B BUFFER
DL3 160nS DELAY
Q56 B BUFFER
RV25 B GAIN1
CV3 B FREQ RESP
Q57,58 INV AMP
Q64 SAMPLE & HOLD
IC2
AT 1-38 B PED CONT IN
AT 1-39 MASTER PED IN
SG 1-13 CLAMP IN
Q90,93 INV
Q81,82(1/2) MIXER R-G/G-R
Q83(1/2) R-G BUFFER
RV30 R-G
Q83(2/2) G-R BUFFER
RV31 G-R
S4 MARK ON/OFF
OFF
ON
-4.5V
SW-220 1-35 DCC $\overline{\text{ON}}$/OFF IN
SW-280,AT 1-36 WHT ENBL IN
SG 1-20 BLKG IN


Q6,34,59
NAM
IC3
NAM Y OUT
1-27 SG
Q7
KNEE CORR
RV7 R SLOPE
Q9
V BLKG SWITCH
TP1
Q13
γ CORR
OFF
S1 R γ ON/OFF
ON
RV36 R BAL
Q16
INV AMP
RV12 R γ CORR
Q18
BUFFER
RV15 R GAIN
Q19,20
INV AMP
IC3(1/4)
DC AMP
Q21
SAMPLE & HOLD
Q22,23
WHITE CLIP
RV18 R W.CLIP
Q24~27
BLACK CLIP
1-29 EN
Q12
SAMPLE & HOLD
IC7
Q8
SAMPLE &HOLD
RV2 R FLR
IC1
RV8 R PED
TP4
Q10,38,63,89
NAM
Q96
BUFFER
Q88
LIMIT
D11,C133
PEAK HOLD
IC9(2/2)
DC AMP
IC10(3/3)
RV37 AUTO START
RV3 G FLR
RV38 AUTO LIMIT
RV35 AUTO GAIN
DC AMP
IC9 (1/2)
RV34 MANU KNEE
Q35
KNEE CORR
RV23 G SLOPE
Q37
V BLKG SWITCH
TP2
Q41
γ CORR
S2 G γ ON/OFF
RV24 G BAL
Q44
INV AMP
RV13 G γ CORR
Q17(1/2)
BUFFER
RV16 G GAIN
Q45,46
INV AMP
IC3(2/4)
DC AMP
Q47
SAMPLE & HOLD
Q48,49
WHITE CLIP
RV19 G W.CLIP
Q50~53
BLACK CLIP
1-31 EN
Q40
SAMPLE & HOLD
IC5
Q36
SAMPLE &HOLD
RV9 G PED
Q60
KNEE CORR
RV28 B SLOPE
Q62
V BLKG SWITCH
TP3
Q43
γ CORR
S3 B γ ON/OFF
RV29 B BAL
Q44
INV AMP
RV14 B γ CORR
Q17(2/2)
BUFFER
RV17 B GAIN
Q70,71
INV AMP
IC3(3/4)
DC AMP
Q72
SAMPLE & HOLD
Q73,74
WHITE CLIP
RV20 B W.CLIP
Q75~78
BLACK CLIP
1-33 EN
Q65
SAMPLE & HOLD
IC2
Q61
SAMPLE &HOLD
RV4 B FLR
RV10 B PED
IC1
INV AMP
Q91
INV
Q95
INV
1-17 IE
MASKING
Q84,82(2/2)
MIXER B-G
RV32 G-B
Q86(1/2)
G-B BUFFER
RV33 B-G
Q86(2/2)
B-G BUFFER
Q87(2/2)
AMP
S5 WHITE CLIP & KNEE ON/OFF
ON
OFF
Q87(1/2)
IC10(1/3)
-4.5V
Q92
BUFFER
L3,C140
LOW PASS FILTER
1
2
3
4
5
I
J
K
L
M
N
O
P

PR-176/176U

CAMERA BLOCK

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

Y/R-Y/B-Y SIGNAL GEN, ENCODER, CB GEN

1

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4

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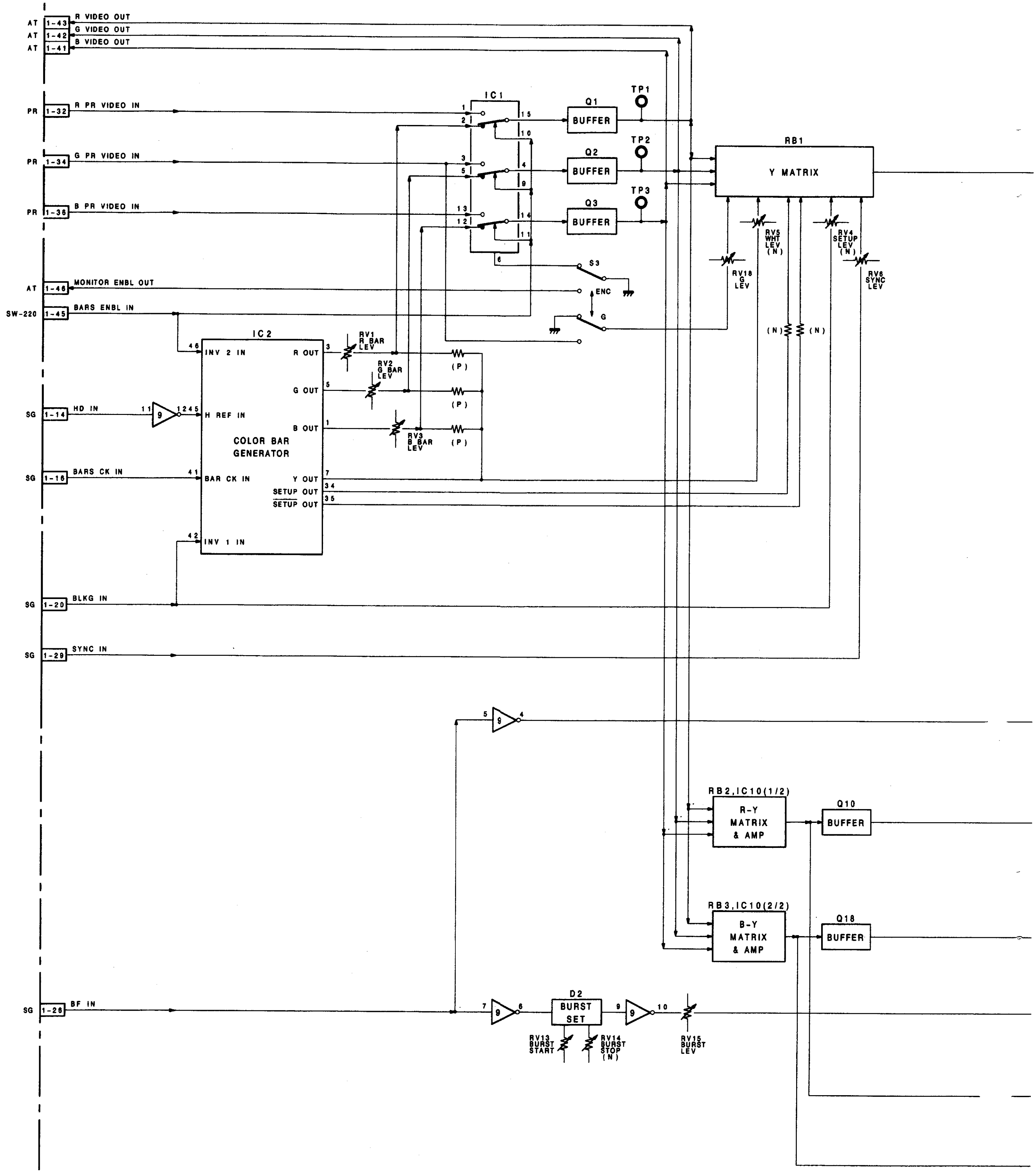
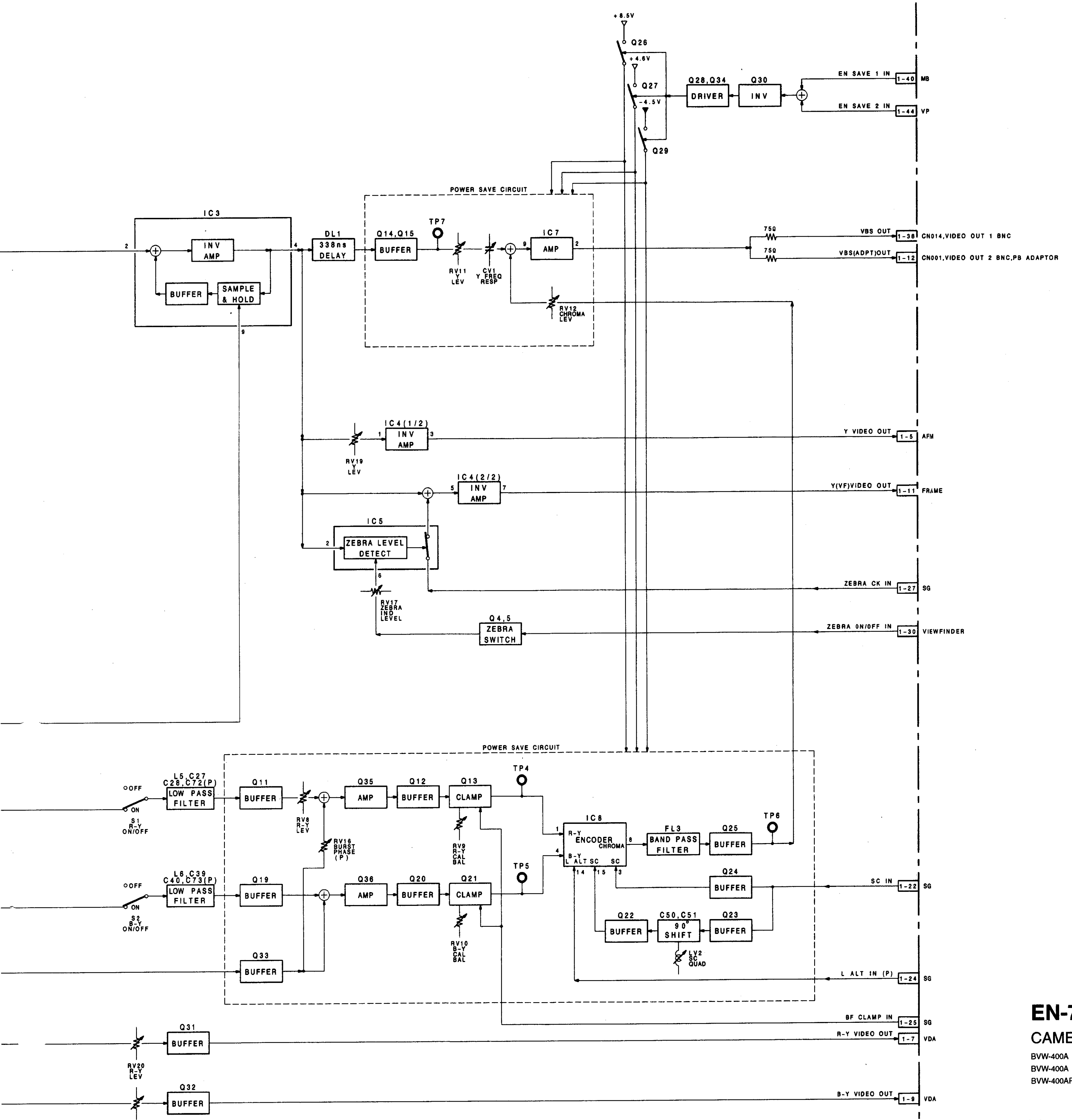

AT 1-43 R VIDEO OUT
AT 1-42 G VIDEO OUT
AT 1-41 B VIDEO OUT
PR 1-32 R PR VIDEO IN
PR 1-34 G PR VIDEO IN
PR 1-36 B PR VIDEO IN
AT 1-46 MONITOR ENBL OUT
SW-220 1-45 BARS ENBL IN
SG 1-14 HD IN
SG 1-16 BARS CK IN
SG 1-20 BLKG IN
SG 1-29 SYNC IN
SG 1-26 BF IN
IC1
1
2
3
5
13
12
15
10
4
9
14
11
6
Q1
BUFFER
Q2
BUFFER
Q3
BUFFER
TP1
TP2
TP3
S3
ENC
G
RB1
Y MATRIX
IC2
46 INV 2 IN
11
9
1245 H REF IN
41 BAR CK IN
42 INV 1 IN
COLOR BAR GENERATOR
R OUT 3
G OUT 5
B OUT 1
Y OUT 7
SETUP OUT 34
SETUP OUT 35
RV1 R BAR LEV
RV2 G BAR LEV
RV3 B BAR LEV
(P)
(P)
(P)
RV18 G LEV
RV5 WHT LEV (N)
RV4 SETUP LEV (N)
RV6 SYNC LEV
(N)
(N)
5
9
4
RB2,IC10(1/2)
R-Y MATRIX & AMP
Q10
BUFFER
RB3,IC10(2/2)
B-Y MATRIX & AMP
Q18
BUFFER
7
9
6
D2
BURST SET
9
9
10
RV13 BURST START
RV14 BURST STOP (N)
RV15 BURST LEV

A | B | C | D | E | F | G | H

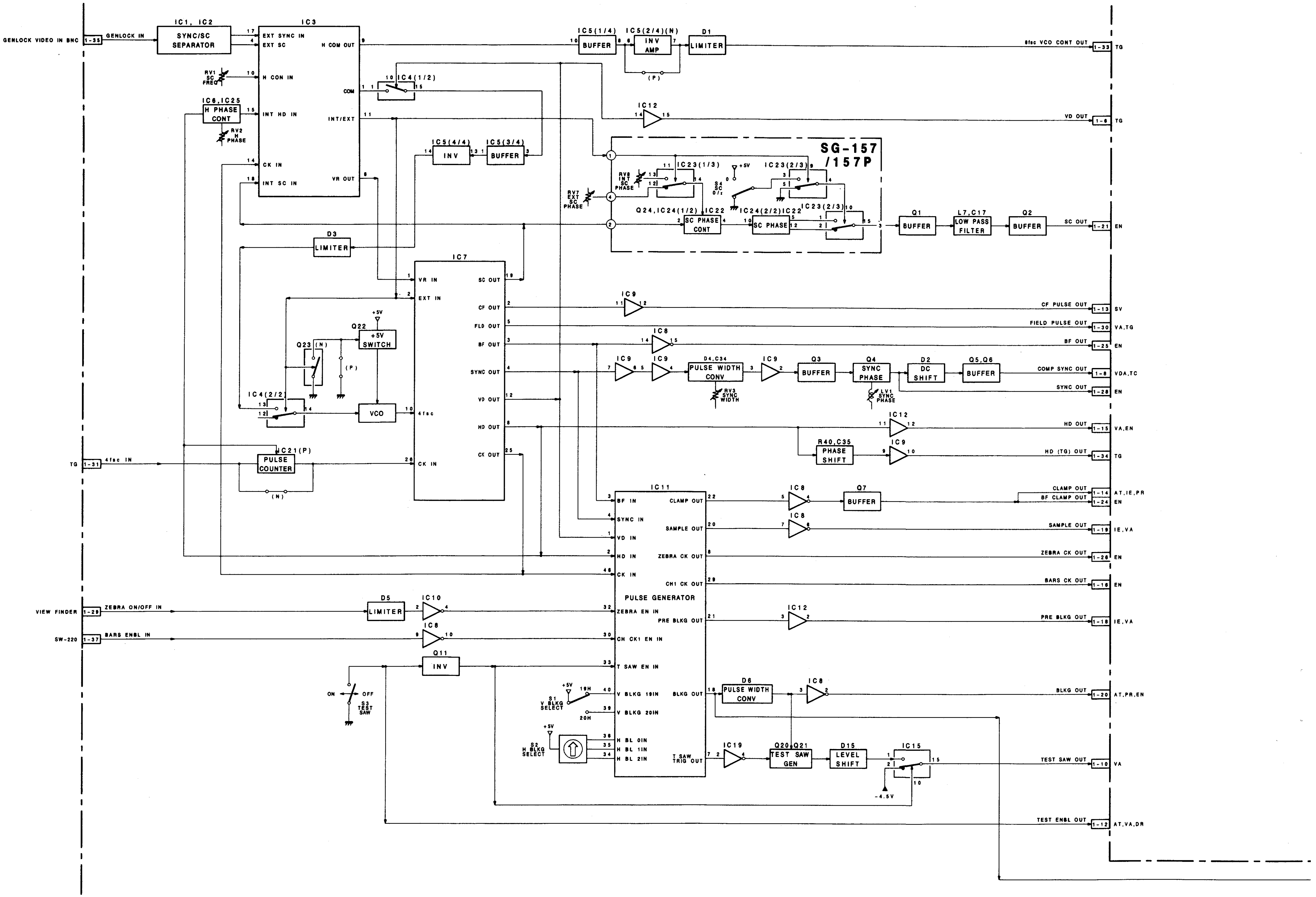

+8.5V
Q26
+4.6V
Q27
-4.5V
Q29
Q28,Q34
DRIVER
Q30
INV
EN SAVE 1 IN
1-40
MB
EN SAVE 2 IN
1-44
VP
POWER SAVE CIRCUIT
IC3
2
INV AMP
4
BUFFER
SAMPLE & HOLD
9
DL1
338ns DELAY
Q14,Q15
BUFFER
TP7
RV11 Y LEV
CV1 Y FREQ RESP
9
IC7
AMP
2
RV12 CHROMA LEV
75Ω
75Ω
VBS OUT
1-38
CN014,VIDEO OUT 1 BNC
VBS(ADPT)OUT
1-12
CN001,VIDEO OUT 2 BNC,PB ADAPTOR
IC4(1/2)
1
INV AMP
3
RV19 Y LEV
Y VIDEO OUT
1-5
AFM
IC4(2/2)
5
INV AMP
7
Y(VF)VIDEO OUT
1-11
FRAME
IC5
2
ZEBRA LEVEL DETECT
6
RV17 ZEBRA IND LEVEL
ZEBRA CK IN
1-27
SG
Q4,5
ZEBRA SWITCH
ZEBRA ON/OFF IN
1-30
VIEWFINDER
POWER SAVE CIRCUIT
OFF
ON
S1 R-Y ON/OFF
L5,C27 C28,C72(P)
LOW PASS FILTER
Q11
BUFFER
RV8 R-Y LEV
RV16 BURST PHASE (P)
Q35
AMP
Q12
BUFFER
Q13
CLAMP
RV9 R-Y CAL BAL
TP4
OFF
ON
S2 B-Y ON/OFF
L6,C39 C40,C73(P)
LOW PASS FILTER
Q19
BUFFER
Q36
AMP
Q20
BUFFER
Q21
CLAMP
RV10 B-Y CAL BAL
TP5
Q33
BUFFER
IC8
1
R-Y
ENCODER
CHROMA
8
4
B-Y
L ALT
SC
SC
14
15
3
FL3
BAND PASS FILTER
Q25
BUFFER
TP6
Q24
BUFFER
SC IN
1-22
SG
Q22
BUFFER
C50,C51
90° SHIFT
Q23
BUFFER
LV2 SC QUAD
L ALT IN (P)
1-24
SG
BF CLAMP IN
1-25
SG
Q31
BUFFER
RV20 R-Y LEV
R-Y VIDEO OUT
1-7
VDA
Q32
BUFFER
RV21 B-Y LEV
B-Y VIDEO OUT
1-9
VDA
1
2
3
4
5
I
J
K
L
M
N
O
P

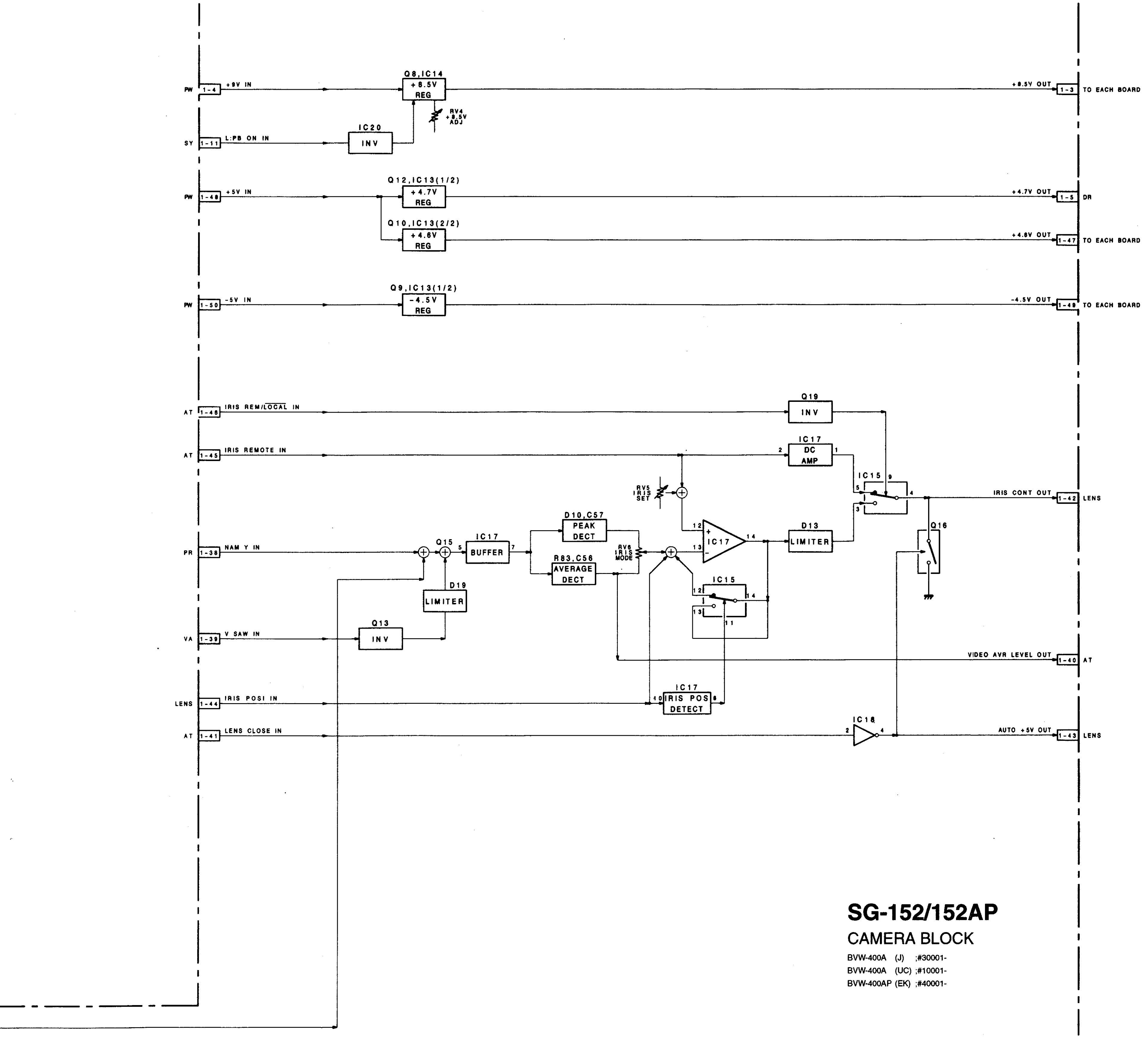
EN-79/79U/79P

CAMERA BLOCK

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

SYNC GEN


GENLOCK VIDEO IN BNC
1-35
GENLOCK IN
IC1, IC2
SYNC/SC SEPARATOR
IC3
EXT SYNC IN
EXT SC
H COM OUT
H CON IN
COM
INT HD IN
INT/EXT
CK IN
INT SC IN
VR OUT
RV1 SC FREQ
IC6, IC25
H PHASE CONT
RV2 H PHASE
IC4(1/2)
IC5(4/4)
INV
IC5(3/4)
BUFFER
D3
LIMITER
IC7
VR IN
EXT IN
SC OUT
CF OUT
FLD OUT
BF OUT
SYNC OUT
VD OUT
HD OUT
CK OUT
4fsc
CK IN
Q22
+5V SWITCH
+5V
Q23 (N)
(P)
IC4(2/2)
VCO
IC21(P)
PULSE COUNTER
(N)
TG
1-31
4fsc IN
IC5(1/4)
BUFFER
IC5(2/4)(N)
INV AMP
(P)
D1
LIMITER
8fsc VCO CONT OUT
1-33
TG
IC12
VD OUT
1-6
TG
SG-157 /157P
RV8 INT SC PHASE
RV7 EXT SC PHASE
IC23(1/3)
+5V
S4 SC 0/π
IC23(2/3)
Q24, IC24(1/2) IC22
SC PHASE CONT
IC24(2/2) IC22
SC PHASE
IC23(2/3)
Q1
BUFFER
L7, C17
LOW PASS FILTER
Q2
BUFFER
SC OUT
1-21
EN
IC9
CF PULSE OUT
1-13
SV
FIELD PULSE OUT
1-30
VA, TG
IC8
BF OUT
1-25
EN
IC9
IC9
D4, C34
PULSE WIDTH CONV
RV3 SYNC WIDTH
IC9
Q3
BUFFER
Q4
SYNC PHASE
LV1 SYNC PHASE
D2
DC SHIFT
Q5, Q6
BUFFER
COMP SYNC OUT
1-8
VDA, TC
SYNC OUT
1-28
EN
IC12
HD OUT
1-15
VA, EN
R40, C35
PHASE SHIFT
IC9
HD (TG) OUT
1-34
TG
IC11
BF IN
SYNC IN
VD IN
HD IN
CK IN
PULSE GENERATOR
ZEBRA EN IN
CH CK1 EN IN
T SAW EN IN
V BLKG 19IN
V BLKG 20IN
H BL 0IN
H BL 1IN
H BL 2IN
CLAMP OUT
SAMPLE OUT
ZEBRA CK OUT
CH1 CK OUT
PRE BLKG OUT
BLKG OUT
T SAW TRIG OUT
IC8
Q7
BUFFER
CLAMP OUT
1-14
AT, IE, PR
BF CLAMP OUT
1-24
EN
IC8
SAMPLE OUT
1-19
IE, VA
ZEBRA CK OUT
1-26
EN
BARS CK OUT
1-16
EN
IC12
PRE BLKG OUT
1-18
IE, VA
VIEW FINDER
1-29
ZEBRA ON/OFF IN
D5
LIMITER
IC10
SW-220
1-37
BARS ENBL IN
IC8
Q11
INV
ON
OFF
S3 TEST SAW
+5V
19H
20H
S1 V BLKG SELECT
+5V
S2 H BLKG SELECT
D6
PULSE WIDTH CONV
IC8
BLKG OUT
1-20
AT, PR, EN
IC19
Q20, Q21
TEST SAW GEN
D15
LEVEL SHIFT
IC15
-4.5V
TEST SAW OUT
1-10
VA
TEST ENBL OUT
1-12
AT, VA, DR

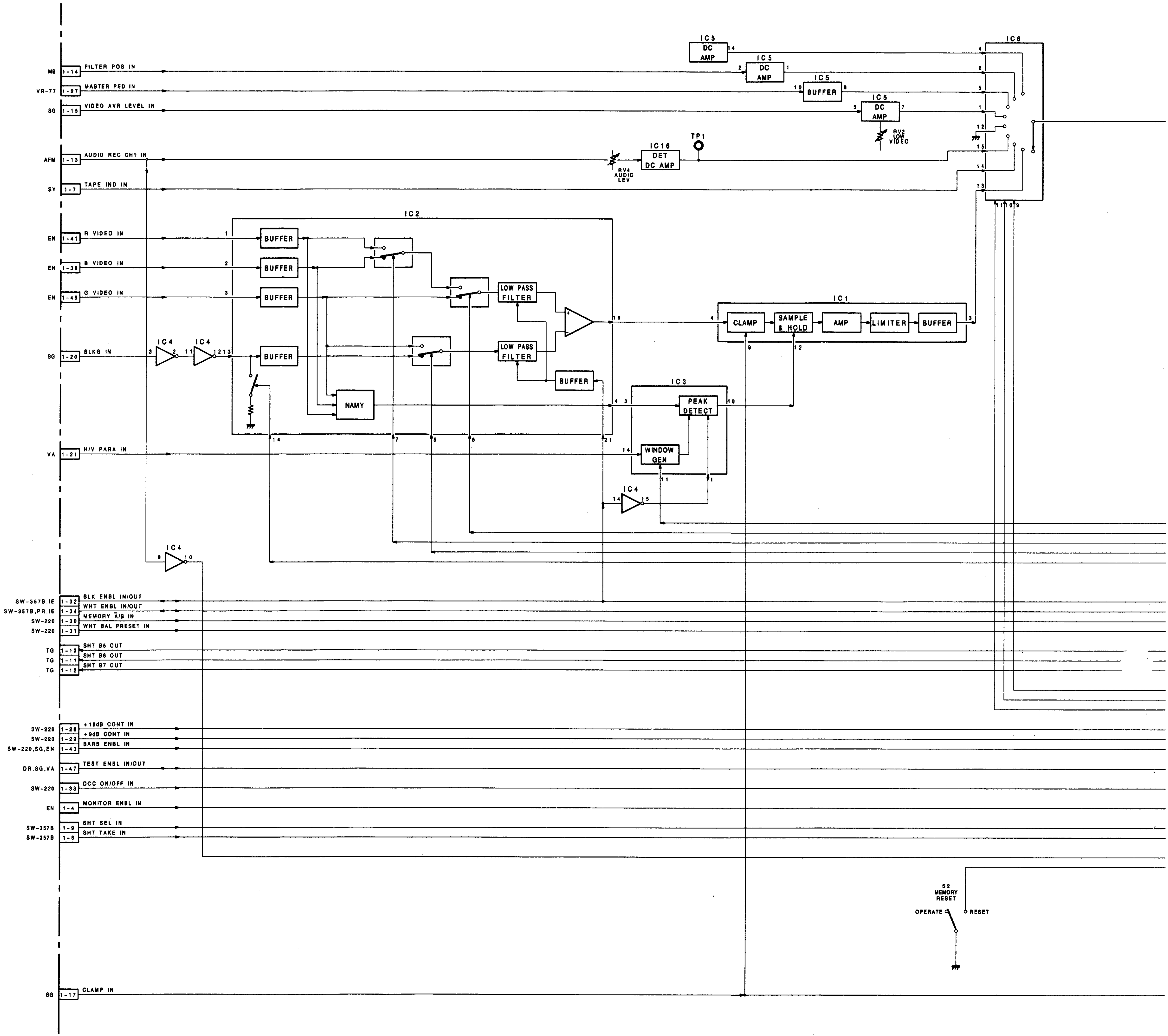

PW 1-4 +9V IN
Q8,IC14 +8.5V REG
RV4 +8.5V ADJ
+8.5V OUT 1-3 TO EACH BOARD
SY 1-11 L:PB ON IN
IC20 INV
PW 1-48 +5V IN
Q12,IC13(1/2) +4.7V REG
+4.7V OUT 1-5 DR
Q10,IC13(2/2) +4.6V REG
+4.6V OUT 1-47 TO EACH BOARD
PW 1-50 -5V IN
Q9,IC13(1/2) -4.5V REG
-4.5V OUT 1-49 TO EACH BOARD
AT 1-46 IRIS REM/LOCAL IN
Q19 INV
AT 1-45 IRIS REMOTE IN
IC17 DC AMP
IC15
IRIS CONT OUT 1-42 LENS
RV5 IRIS SET
Q16
D10,C57 PEAK DECT
R83,C56 AVERAGE DECT
RV6 IRIS MODE
IC17
D13 LIMITER
PR 1-38 NAM Y IN
Q15
IC17 BUFFER
D19 LIMITER
IC15
VA 1-39 V SAW IN
Q13 INV
VIDEO AVR LEVEL OUT 1-40 AT
LENS 1-44 IRIS POSI IN
IC17 IRIS POS DETECT
AT 1-41 LENS CLOSE IN
IC18
AUTO +5V OUT 1-43 LENS

SG-152/152AP

CAMERA BLOCK

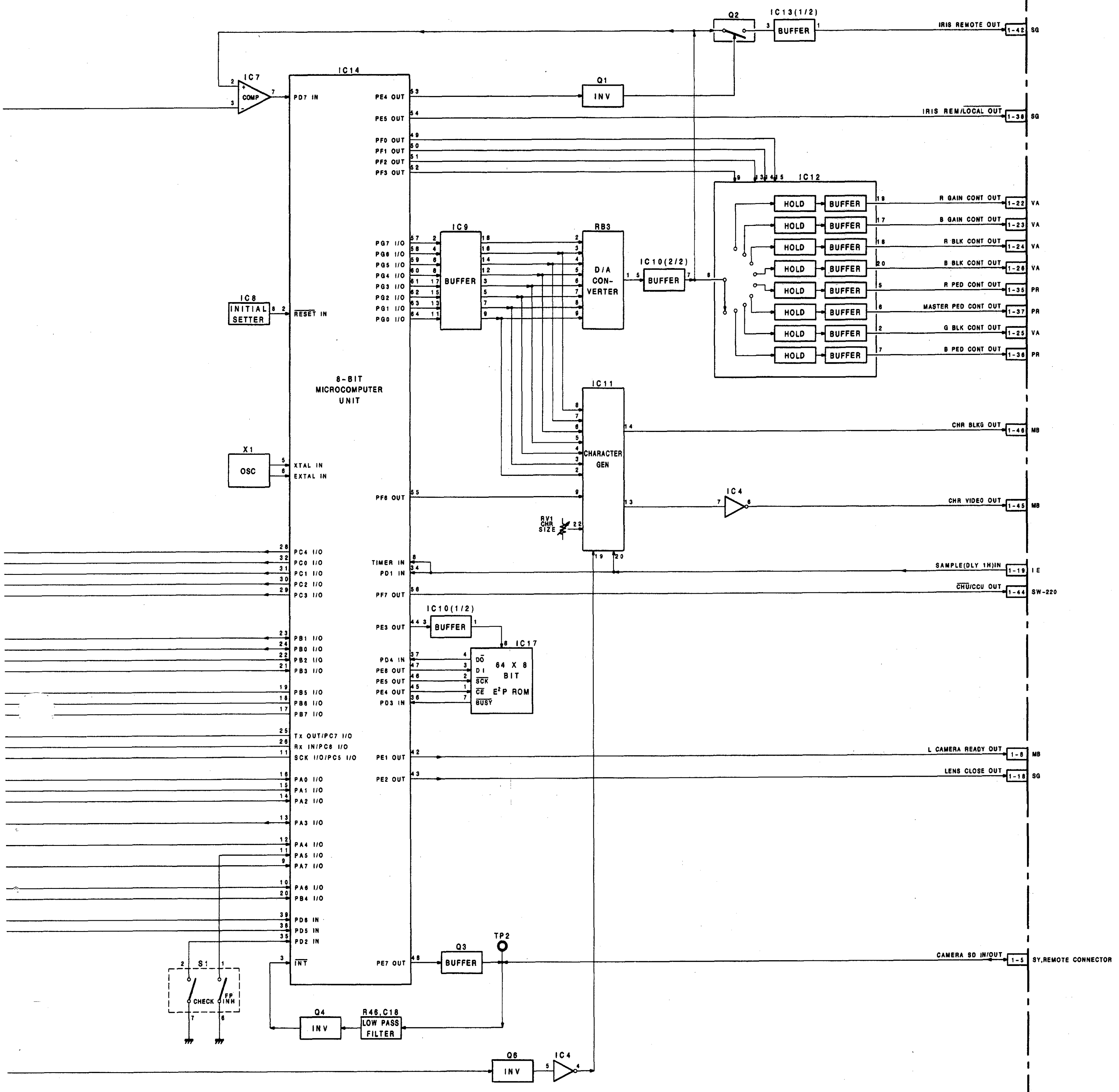
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

AUTO W/B, CHARA GEN, SYS-CON


MB 1-14 FILTER POS IN
VR-77 1-27 MASTER PED IN
SG 1-15 VIDEO AVR LEVEL IN
AFM 1-13 AUDIO REC CH1 IN
SY 1-7 TAPE IND IN
EN 1-41 R VIDEO IN
EN 1-39 B VIDEO IN
EN 1-40 G VIDEO IN
SG 1-20 BLKG IN
VA 1-21 H/V PARA IN
SW-357B,IE 1-32 BLK ENBL IN/OUT
SW-357B,PR,IE 1-34 WHT ENBL IN/OUT
SW-220 1-30 MEMORY $\overline{A}$/B IN
SW-220 1-31 WHT BAL PRESET IN
TG 1-10 SHT B5 OUT
TG 1-11 SHT B6 OUT
TG 1-12 SHT B7 OUT
SW-220 1-28 +18dB CONT IN
SW-220 1-29 +9dB CONT IN
SW-220,SG,EN 1-43 BARS ENBL IN
DR,SG,VA 1-47 TEST ENBL IN/OUT
SW-220 1-33 DCC ON/OFF IN
EN 1-4 MONITOR ENBL IN
SW-357B 1-9 SHT SEL IN
SW-357B 1-8 SHT TAKE IN
SG 1-17 CLAMP IN
IC5 DC AMP
IC5 DC AMP
IC5 BUFFER
IC5 DC AMP
RV2 LOW VIDEO
IC6
IC16 DET DC AMP
TP1
RV4 AUDIO LEV
IC2
BUFFER
BUFFER
BUFFER
BUFFER
LOW PASS FILTER
LOW PASS FILTER
BUFFER
NAMY
IC4
IC4
IC4
IC4
IC1
CLAMP
SAMPLE & HOLD
AMP
LIMITER
BUFFER
IC3
PEAK DETECT
WINDOW GEN
S2 MEMORY RESET
OPERATE
RESET

1 2 3 4 5

A B C D E F G H


IC7
COMP
PD7 IN
IC14
PE4 OUT
PE5 OUT
PF0 OUT
PF1 OUT
PF2 OUT
PF3 OUT
Q1
INV
Q2
IC13(1/2)
BUFFER
IRIS REMOTE OUT
1-42
SG
IRIS REM/LOCAL OUT
1-38
SG
IC12
HOLD
BUFFER
R GAIN CONT OUT
1-22
VA
B GAIN CONT OUT
1-23
VA
R BLK CONT OUT
1-24
VA
B BLK CONT OUT
1-26
VA
R PED CONT OUT
1-35
PR
MASTER PED CONT OUT
1-37
PR
G BLK CONT OUT
1-25
VA
B PED CONT OUT
1-36
PR
IC9
BUFFER
PG7 I/O
PG6 I/O
PG5 I/O
PG4 I/O
PG3 I/O
PG2 I/O
PG1 I/O
PG0 I/O
RB3
D/A CON-VERTER
IC10(2/2)
BUFFER
IC8
INITIAL SETTER
RESET IN
8-BIT MICROCOMPUTER UNIT
IC11
CHARACTER GEN
CHR BLKG OUT
1-46
MB
X1
OSC
XTAL IN
EXTAL IN
PF6 OUT
IC4
CHR VIDEO OUT
1-45
MB
RV1 CHR SIZE
PC4 I/O
PC0 I/O
PC1 I/O
PC2 I/O
PC3 I/O
TIMER IN
PD1 IN
SAMPLE(DLY 1H)IN
1-19
IE
PF7 OUT
CHU/CCU OUT
1-44
SW-220
IC10(1/2)
BUFFER
PE3 OUT
IC17
64 X 8 BIT E²P ROM
DO
DI
SCK
CE
BUSY
PB1 I/O
PB0 I/O
PB2 I/O
PB3 I/O
PD4 IN
PE6 OUT
PE5 OUT
PE4 OUT
PD3 IN
PB5 I/O
PB6 I/O
PB7 I/O
TX OUT/PC7 I/O
RX IN/PC6 I/O
SCK I/O/PC5 I/O
PE1 OUT
L CAMERA READY OUT
1-8
MB
PE2 OUT
LENS CLOSE OUT
1-18
SG
PA0 I/O
PA1 I/O
PA2 I/O
PA3 I/O
PA4 I/O
PA5 I/O
PA7 I/O
PA6 I/O
PB4 I/O
PD6 IN
PD5 IN
PD2 IN
INT
PE7 OUT
Q3
BUFFER
TP2
CAMERA SD IN/OUT
1-5
SY,REMOTE CONNECTOR
S1
CHECK
FP INH
Q4
INV
R46,C18
LOW PASS FILTER
Q6
INV
IC4

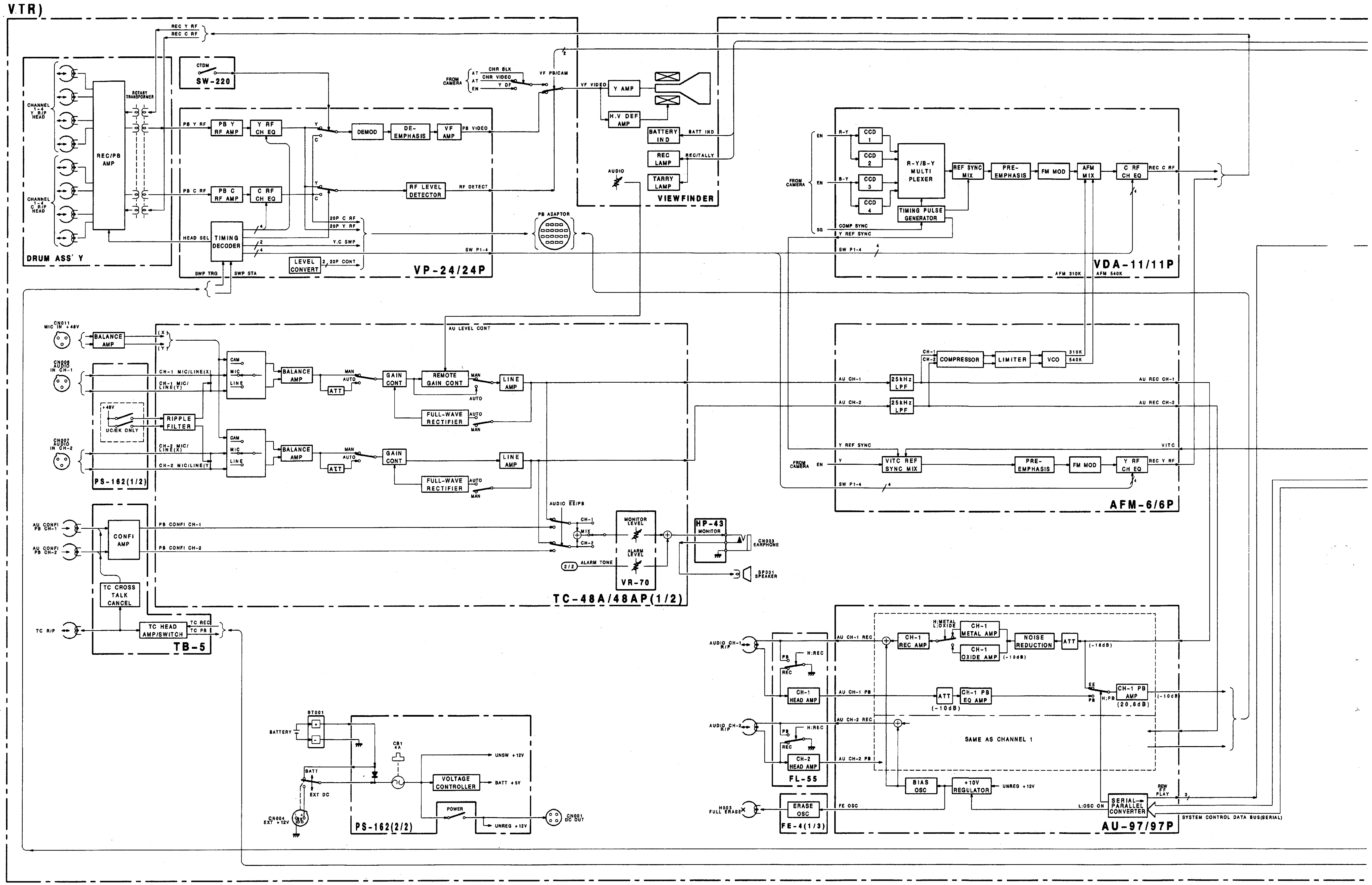
AT-49B

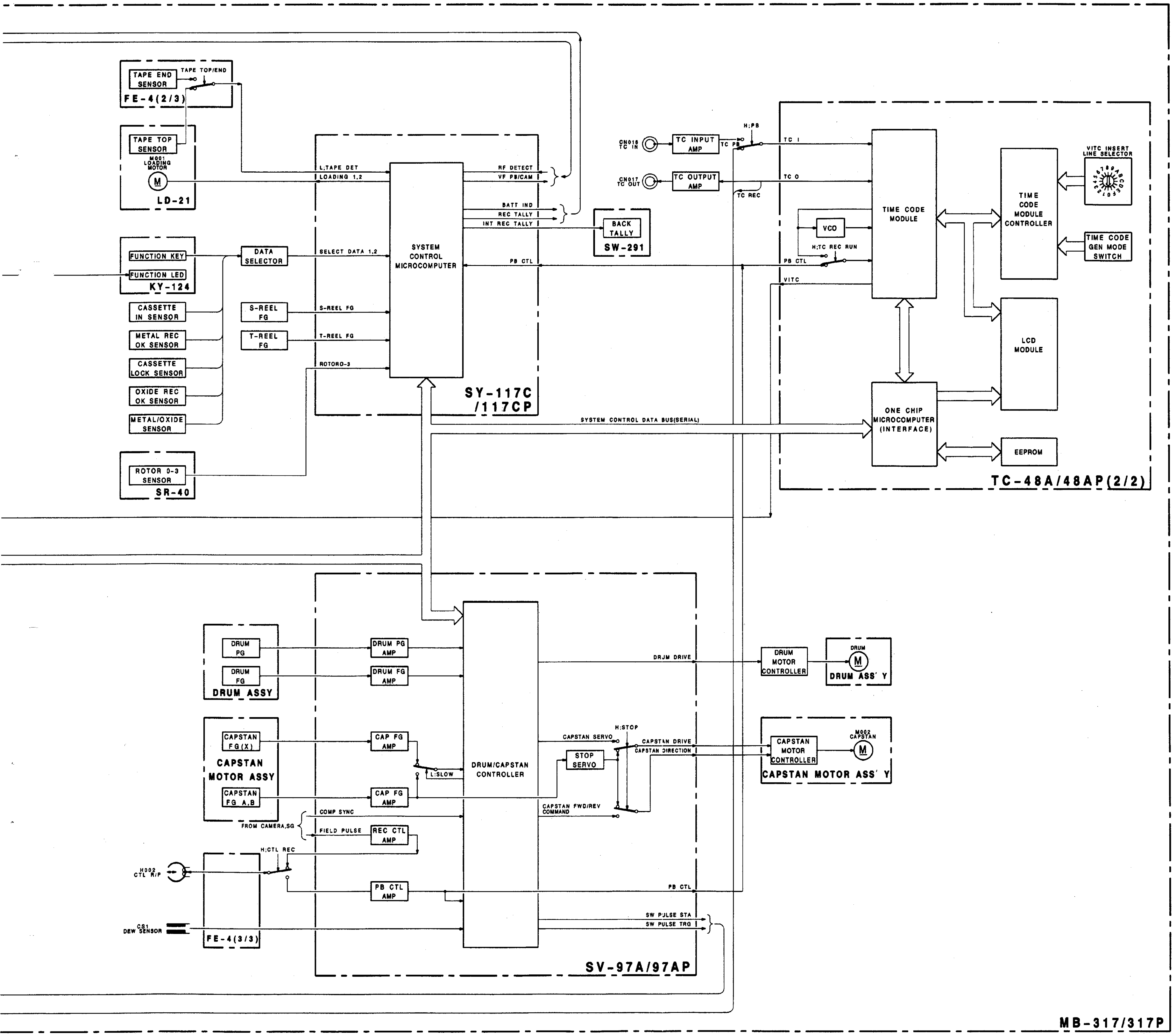
CAMERA BLOCK

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

OVERALL BLOCK DIAGRAM (VTR)

S/N J;30001 through 30935
UC;10001 through 11053


VTR)
REC Y RF
REC C RF
CHANNEL 1-4 Y R/P HEAD
CHANNEL 1-4 C R/P HEAD
REC/PB AMP
ROTARY TRANSFORMER
DRUM ASS' Y
CTDM
SW-220
PB Y RF
PB Y RF AMP
Y RF CH EQ
PB C RF
PB C RF AMP
C RF CH EQ
Y
C
DEMOD
DE-EMPHASIS
VF AMP
PB VIDEO
RF LEVEL DETECTOR
RF DETECT
HEAD SEL
TIMING DECODER
20P C RF
20P Y RF
Y.C SWP
SW P1-4
LEVEL CONVERT
2
20P CONT
4
SWP TRG
SWP STA
VP-24/24P
FROM CAMERA
AT
CHR BLK
CHR VIDEO
EN
Y DF
VF PB/CAM
VF VIDEO
Y AMP
H.V DEF AMP
BATTERY IND
BATT IND
REC LAMP
REC/TALLY
TARRY LAMP
AUDIO
VIEWFINDER
PB ADAPTOR
R-Y
B-Y
SG
CCD 1
CCD 2
CCD 3
CCD 4
R-Y/B-Y MULTI PLEXER
TIMING PULSE GENERATOR
COMP SYNC
Y REF SYNC
REF SYNC MIX
PRE-EMPHASIS
FM MOD
AFM MIX
C RF CH EQ
REC C RF
VDA-11/11P
AFM 310K
AFM 540K
CN011 MIC IN +48V
BALANCE AMP
(X)
(Y)
CN006 AUDIO IN CH-1
CH-1 MIC/LINE(X)
CH-1 MIC/LINE(Y)
+48V
UC/EK ONLY
RIPPLE FILTER
CN007 AUDIO IN CH-2
CH-2 MIC/LINE(X)
CH-2 MIC/LINE(Y)
PS-162(1/2)
CAM
MIC
LINE
MAN
AUTO
ATT
GAIN CONT
AU LEVEL CONT
REMOTE GAIN CONT
LINE AMP
FULL-WAVE RECTIFIER
AU CONFI PB CH-1
AU CONFI PB CH-2
CONFI AMP
PB CONFI CH-1
PB CONFI CH-2
TC CROSS TALK CANCEL
TC R/P
TC HEAD AMP/SWITCH
TC REC
TC PB
TB-5
AUDIO EE/PB
CH-1
MIX
CH-2
MONITOR LEVEL
ALARM LEVEL
2/2
ALARM TONE
VR-70
TC-48A/48AP(1/2)
HP-43
MONITOR
CN003 EARPHONE
SP001 SPEAKER
CH-1
CH-2
COMPRESSOR
LIMITER
VCO
310K
540K
AU CH-1
AU CH-2
25kHz LPF
AU REC CH-1
AU REC CH-2
Y REF SYNC
VITC
FROM CAMERA
EN
Y
VITC REF SYNC MIX
PRE-EMPHASIS
FM MOD
Y RF CH EQ
REC Y RF
SW P1-4
AFM-6/6P
AUDIO CH-1 R/P
AUDIO CH-2 R/P
PB
H:REC
REC
CH-1 HEAD AMP
CH-2 HEAD AMP
FL-55
H003 FULL ERASE
ERASE OSC
FE-4(1/3)
AU CH-1 REC
AU CH-1 PB
AU CH-2 REC
AU CH-2 PB
FE OSC
CH-1 REC AMP
H:METAL L:OXIDE
CH-1 METAL AMP
CH-1 OXIDE AMP
(-10dB)
NOISE REDUCTION
ATT
(-16dB)
ATT
(-10dB)
CH-1 PB EQ AMP
EE
PB
H;PB
CH-1 PB AMP
(20,8dB)
(-10dB)
SAME AS CHANNEL 1
BIAS OSC
+10V REGULATOR
UNREG +12V
L:OSC ON
SERIAL→PARALLEL CONVERTER
REW FF PLAY
3
SYSTEM CONTROL DATA BUS(SERIAL)
AU-97/97P
BT001
BATTERY
+
-
BATT
EXT DC
CN004 EXT +12V
CB1 4A
UNSW +12V
VOLTAGE CONTROLLER
BATT +5V
POWER
UNREG +12V
CN001 DC OUT
PS-162(2/2)


TAPE END SENSOR
TAPE TOP/END
FE-4(2/3)
TAPE TOP SENSOR
M001 LOADING MOTOR
M
LD-21
FUNCTION KEY
FUNCTION LED
KY-124
CASSETTE IN SENSOR
METAL REC OK SENSOR
CASSETTE LOCK SENSOR
OXIDE REC OK SENSOR
METAL/OXIDE SENSOR
ROTOR 0-3 SENSOR
SR-40
DATA SELECTOR
S-REEL FG
T-REEL FG
L;TAPE DET
LOADING 1,2
SELECT DATA 1,2
S-REEL FG
T-REEL FG
ROTOR0-3
SYSTEM CONTROL MICROCOMPUTER
RF DETECT
VF PB/CAM
BATT IND
REC TALLY
INT REC TALLY
PB CTL
SY-117C /117CP
BACK TALLY
SW-291
SYSTEM CONTROL DATA BUS(SERIAL)
CN018 TC IN
CN017 TC OUT
TC INPUT AMP
TC OUTPUT AMP
TC PB
H;PB
TC REC
TC I
TC O
VCO
H;TC REC RUN
PB CTL
VITC
TIME CODE MODULE
TIME CODE MODULE CONTROLLER
VITC INSERT LINE SELECTOR
TIME CODE GEN MODE SWITCH
LCD MODULE
ONE CHIP MICROCOMPUTER (INTERFACE)
EEPROM
TC-48A/48AP(2/2)
DRUM PG
DRUM FG
DRUM ASSY
DRUM PG AMP
DRUM FG AMP
CAPSTAN FG(X)
CAPSTAN MOTOR ASSY
CAPSTAN FG A,B
CAP FG AMP
CAP FG AMP
L;SLOW
DRUM/CAPSTAN CONTROLLER
COMP SYNC
FROM CAMERA,SG
FIELD PULSE
REC CTL AMP
H;CTL REC
H002 CTL R/P
PB CTL AMP
CS1 DEW SENSOR
FE-4(3/3)
DRUM DRIVE
CAPSTAN SERVO
H;STOP
STOP SERVO
CAPSTAN DRIVE
CAPSTAN DIRECTION
CAPSTAN FWD/REV COMMAND
PB CTL
SW PULSE STA
SW PULSE TRG
SV-97A/97AP
DRUM MOTOR CONTROLLER
DRUM
M
DRUM ASS' Y
CAPSTAN MOTOR CONTROLLER
M002 CAPSTAN
CAPSTAN MOTOR ASS' Y
MB-317/317P
1
2
3
4
5

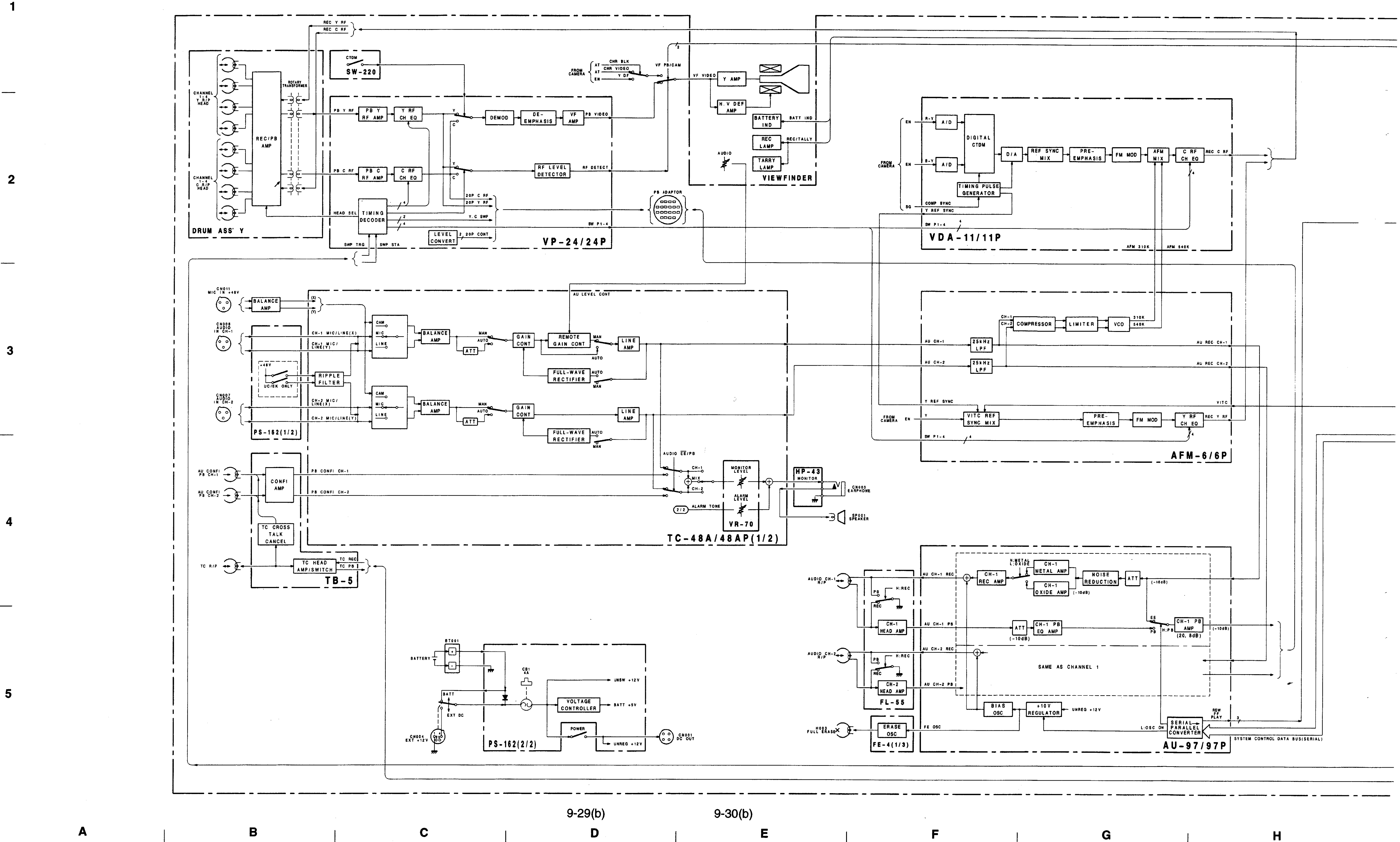
OVERALL

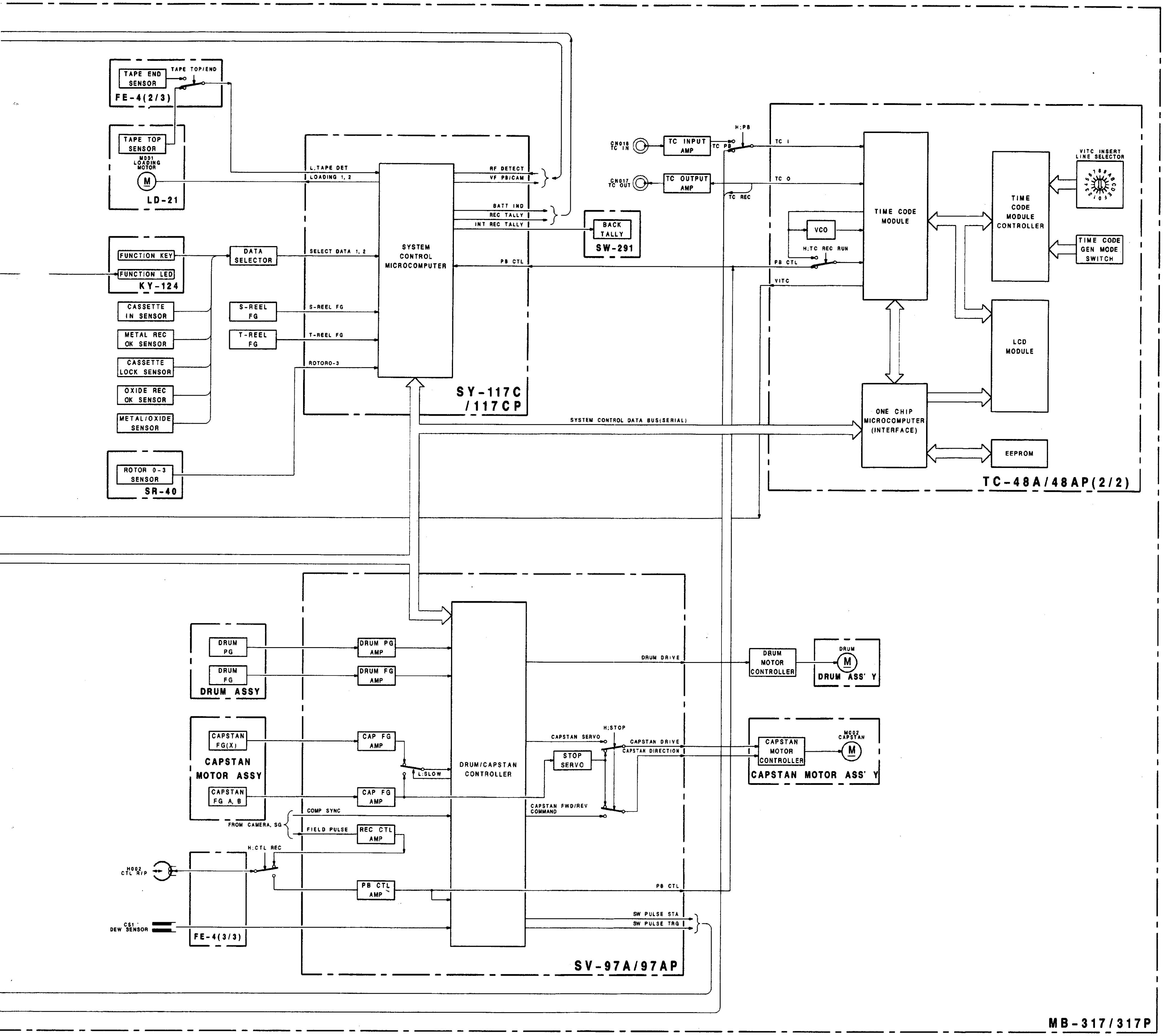
VTR BLOCK

BVW-400A (J) ;#30001-30935
BVW-400A (UC) ;#10001-11053
BVW-400AP (EK) ;#40001-41567

OVERALL BLOCK DIAGRAM (VTR)

S/N J;30936 and higher
UC;11054 and higher


1
2
3
4
5
DRUM ASS'Y
CHANNEL 1-4 Y R/P HEAD
CHANNEL 1-4 C R/P HEAD
REC/PB AMP
ROTARY TRANSFORMER
REC Y RF
REC C RF
SW-220
CTDM
PB Y RF
PB C RF
PB Y RF AMP
Y RF CH EQ
PB C RF AMP
C RF CH EQ
DEMOD
DE-EMPHASIS
VF AMP
PB VIDEO
RF LEVEL DETECTOR
RF DETECT
TIMING DECODER
HEAD SEL
20P C RF
20P Y RF
Y.C SWP
SW P1-4
LEVEL CONVERT
20P CONT
SWP TRG
SWP STA
VP-24/24P
FROM CAMERA
CHR BLK
CHR VIDEO
Y DF
VF PB/CAM
VF VIDEO
Y AMP
H.V DEF AMP
BATTERY IND
BATT IND
REC LAMP
REC/TALLY
TARRY LAMP
AUDIO
VIEWFINDER
PB ADAPTOR
R-Y
B-Y
A/D
DIGITAL CTDM
D/A
REF SYNC MIX
PRE-EMPHASIS
FM MOD
AFM MIX
C RF CH EQ
REC C RF
TIMING PULSE GENERATOR
COMP SYNC
Y REF SYNC
VDA-11/11P
AFM 310K
AFM 540K
CN011 MIC IN +48V
BALANCE AMP
CN008 AUDIO IN CH-1
CN007 AUDIO IN CH-2
CH-1 MIC/LINE(X)
CH-1 MIC/LINE(Y)
CH-2 MIC/LINE(X)
CH-2 MIC/LINE(Y)
+48V
UC/EK ONLY
RIPPLE FILTER
PS-162(1/2)
CAM
MIC
LINE
MAN
AUTO
ATT
GAIN CONT
REMOTE GAIN CONT
AU LEVEL CONT
LINE AMP
FULL-WAVE RECTIFIER
AU CONFI PB CH-1
AU CONFI PB CH-2
CONFI AMP
PB CONFI CH-1
PB CONFI CH-2
TC CROSS TALK CANCEL
TC R/P
TC HEAD AMP/SWITCH
TC REC
TC PB
TB-5
AUDIO EE/PB
CH-1
MIX
CH-2
MONITOR LEVEL
ALARM LEVEL
ALARM TONE
VR-70
HP-43
MONITOR
CN003 EARPHONE
SP001 SPEAKER
TC-48A/48AP(1/2)
CH-1
CH-2
COMPRESSOR
LIMITER
VCO
310K
540K
AU CH-1
AU CH-2
25kHz LPF
AU REC CH-1
AU REC CH-2
Y REF SYNC
VITC
VITC REF SYNC MIX
PRE-EMPHASIS
FM MOD
Y RF CH EQ
REC Y RF
SW P1-4
AFM-6/6P
BT001
BATTERY
BATT
EXT DC
CN004 EXT +12V
CB1 4A
UNSW +12V
VOLTAGE CONTROLLER
BATT +5V
POWER
UNREG +12V
CN001 DC OUT
PS-162(2/2)
AUDIO CH-1 R/P
AUDIO CH-2 R/P
PB
H:REC
REC
CH-1 HEAD AMP
CH-2 HEAD AMP
FL-55
H003 FULL ERASE
ERASE OSC
FE OSC
FE-4(1/3)
AU CH-1 REC
AU CH-1 PB
AU CH-2 REC
AU CH-2 PB
CH-1 REC AMP
H:METAL L:OXIDE
CH-1 METAL AMP
CH-1 OXIDE AMP
(-10dB)
NOISE REDUCTION
ATT
(-18dB)
ATT (-10dB)
CH-1 PB EQ AMP
EE
PB
H:PB
CH-1 PB AMP (20.8dB)
(-10dB)
SAME AS CHANNEL 1
BIAS OSC
+10V REGULATOR
UNREG +12V
L:OSC ON
SERIAL PARALLEL CONVERTER
REW FF PLAY
SYSTEM CONTROL DATA BUS(SERIAL)
AU-97/97P
A
B
C
D
E
F
G
H


TAPE END SENSOR
TAPE TOP/END
FE-4(2/3)
TAPE TOP SENSOR
M001 LOADING MOTOR
M
LD-21
FUNCTION KEY
FUNCTION LED
KY-124
CASSETTE IN SENSOR
METAL REC OK SENSOR
CASSETTE LOCK SENSOR
OXIDE REC OK SENSOR
METAL/OXIDE SENSOR
ROTOR 0-3 SENSOR
SR-40
DATA SELECTOR
S-REEL FG
T-REEL FG
L:TAPE DET
LOADING 1, 2
SELECT DATA 1, 2
S-REEL FG
T-REEL FG
ROTORO-3
SYSTEM CONTROL MICROCOMPUTER
RF DETECT
VF PB/CAM
BATT IND
REC TALLY
INT REC TALLY
PB CTL
SY-117C /117CP
BACK TALLY
SW-291
SYSTEM CONTROL DATA BUS(SERIAL)
CN018 TC IN
CN017 TC OUT
TC INPUT AMP
TC OUTPUT AMP
H;PB
TC PB
TC REC
TC I
TC O
VCO
H;TC REC RUN
PB CTL
VITC
TIME CODE MODULE
TIME CODE MODULE CONTROLLER
VITC INSERT LINE SELECTOR
TIME CODE GEN MODE SWITCH
LCD MODULE
ONE CHIP MICROCOMPUTER (INTERFACE)
EEPROM
TC-48A/48AP(2/2)
DRUM PG
DRUM FG
DRUM ASSY
CAPSTAN FG(X)
CAPSTAN MOTOR ASSY
CAPSTAN FG A, B
DRUM PG AMP
DRUM FG AMP
CAP FG AMP
CAP FG AMP
L:SLOW
COMP SYNC
FROM CAMERA, SG
FIELD PULSE
REC CTL AMP
H;CTL REC
H002 CTL R/P
PB CTL AMP
CS1 DEW SENSOR
FE-4(3/3)
DRUM/CAPSTAN CONTROLLER
DRUM DRIVE
CAPSTAN SERVO
H;STOP
STOP SERVO
CAPSTAN DRIVE
CAPSTAN DIRECTION
CAPSTAN FWD/REV COMMAND
PB CTL
SW PULSE STA
SW PULSE TRG
SV-97A/97AP
DRUM MOTOR CONTROLLER
DRUM
M
DRUM ASS' Y
CAPSTAN MOTOR CONTROLLER
M002 CAPSTAN
M
CAPSTAN MOTOR ASS' Y
MB-317/317P

1
2
3
4
5
I
J
K
L
M
N
O
P

OVERALL

VTR BLOCK

BVW-400A (J) ;#30936-
BVW-400A (UC) ;#11054-
BVW-400AP (EK) ;#41568-

CTDM AND C-MODULATOR

S/N J;30001 through 30935
UC;10001 through 11053

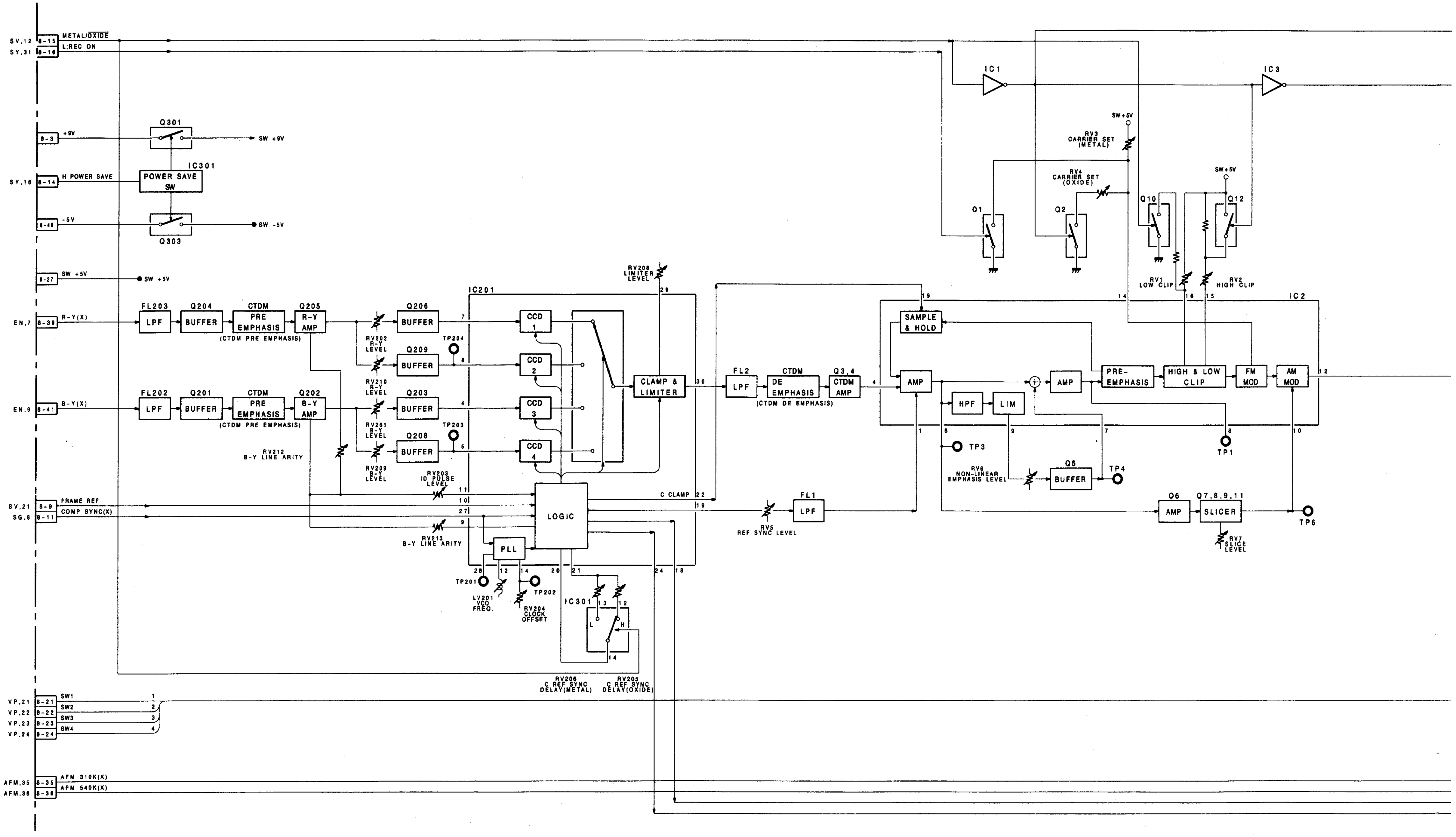
1

2

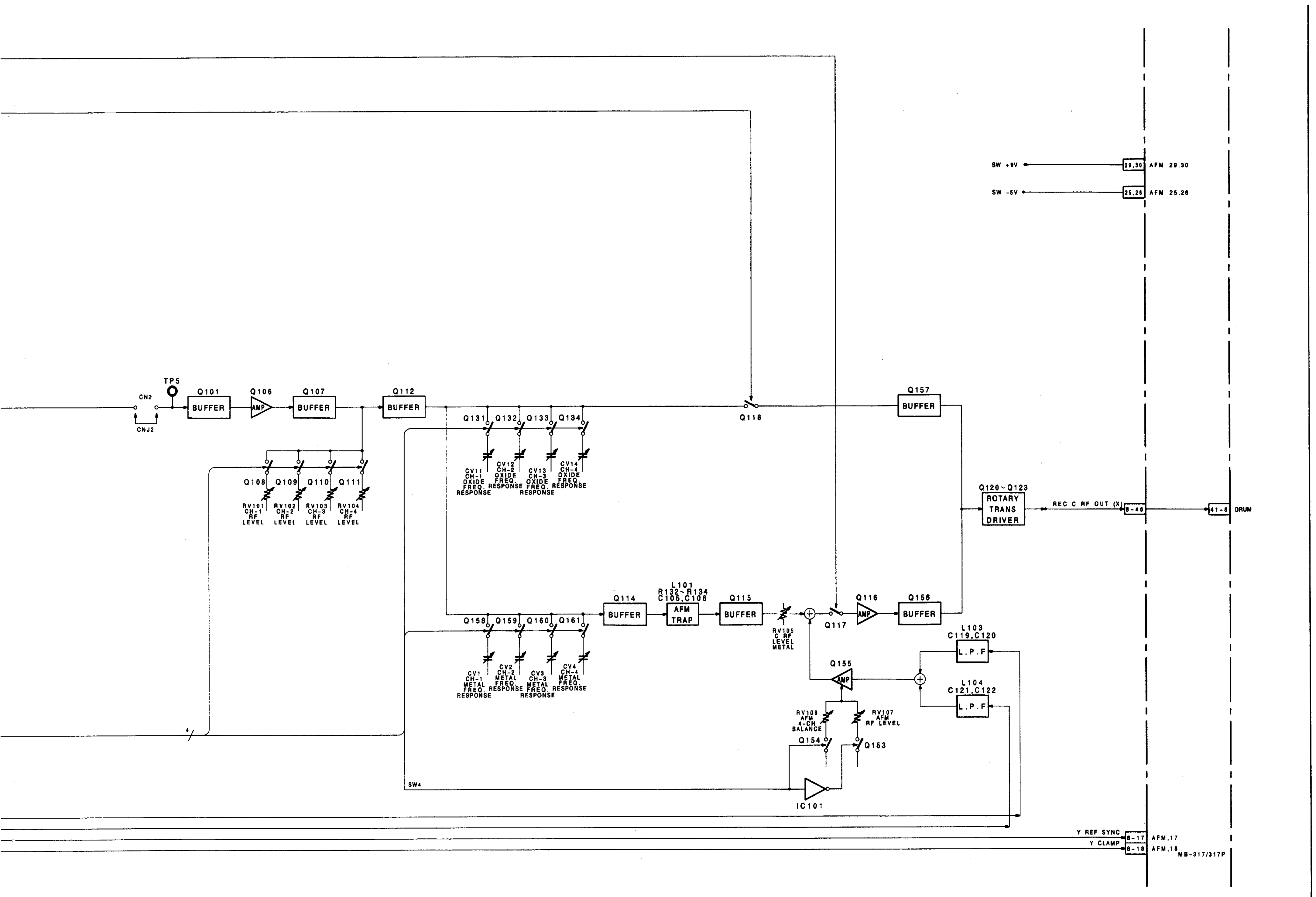
3

4

5


SV,12
8-15
METAL/OXIDE
SY,31
8-16
L;REC ON
8-3
+9V
Q301
SW +9V
IC301
SY,16
8-14
H POWER SAVE
POWER SAVE SW
8-49
-5V
SW -5V
Q303
8-27
SW +5V
SW +5V
EN,7
8-39
R-Y(X)
FL203
LPF
Q204
BUFFER
CTDM PRE EMPHASIS
(CTDM PRE EMPHASIS)
Q205
R-Y AMP
RV202 R-Y LEVEL
Q206
BUFFER
Q209
BUFFER
TP204
RV210 R-Y LEVEL
EN,9
8-41
B-Y(X)
FL202
LPF
Q201
BUFFER
CTDM PRE EMPHASIS
(CTDM PRE EMPHASIS)
Q202
B-Y AMP
Q203
BUFFER
RV201 B-Y LEVEL
Q208
BUFFER
TP203
RV212 B-Y LINE ARITY
RV209 B-Y LEVEL
RV203 ID PULSE LEVEL
SV,21
8-9
FRAME REF
SG,8
8-11
COMP SYNC(X)
RV213 B-Y LINE ARITY
IC201
CCD 1
CCD 2
CCD 3
CCD 4
RV208 LIMITER LEVEL
CLAMP & LIMITER
LOGIC
PLL
C CLAMP
TP201
LV201 VCO FREQ.
RV204 CLOCK OFFSET
TP202
IC301
L
H
RV206 C REF SYNC DELAY(METAL)
RV205 C REF SYNC DELAY(OXIDE)
FL2
LPF
CTDM DE EMPHASIS
(CTDM DE EMPHASIS)
Q3,4
CTDM AMP
RV5 REF SYNC LEVEL
FL1
LPF
IC1
IC3
SW+5V
RV3 CARRIER SET (METAL)
RV4 CARRIER SET (OXIDE)
SW+5V
Q1
Q2
Q10
Q12
RV1 LOW CLIP
RV2 HIGH CLIP
IC2
SAMPLE & HOLD
AMP
HPF
LIM
AMP
PRE-EMPHASIS
HIGH & LOW CLIP
FM MOD
AM MOD
TP3
TP1
RV6 NON-LINEAR EMPHASIS LEVEL
Q5
BUFFER
TP4
Q6
AMP
Q7,8,9,11
SLICER
TP6
RV7 SLICE LEVEL
VP,21
8-21
SW1
VP,22
8-22
SW2
VP,23
8-23
SW3
VP,24
8-24
SW4
AFM,35
8-35
AFM 310K(X)
AFM,36
8-36
AFM 540K(X)

A | B | C | D | E | F | G | H


CN2
CNJ2
TP5
Q101
BUFFER
Q106
AMP
Q107
BUFFER
Q112
BUFFER
Q108
Q109
Q110
Q111
RV101 CH-1 RF LEVEL
RV102 CH-2 RF LEVEL
RV103 CH-3 RF LEVEL
RV104 CH-4 RF LEVEL
Q131
Q132
Q133
Q134
CV11 CH-1 OXIDE FREQ. RESPONSE
CV12 CH-2 OXIDE FREQ. RESPONSE
CV13 CH-3 OXIDE FREQ. RESPONSE
CV14 CH-4 OXIDE FREQ. RESPONSE
Q118
Q157
BUFFER
Q120~Q123
ROTARY TRANS DRIVER
REC C RF OUT (X)
8-46
41-6
DRUM
SW +9V
29,30
AFM 29,30
SW -5V
25,26
AFM 25,26
Q158
Q159
Q160
Q161
CV1 CH-1 METAL FREQ. RESPONSE
CV2 CH-2 METAL FREQ. RESPONSE
CV3 CH-3 METAL FREQ. RESPONSE
CV4 CH-4 METAL FREQ. RESPONSE
Q114
BUFFER
L101
R132~R134
C105,C106
AFM TRAP
Q115
BUFFER
RV105 C RF LEVEL METAL
Q117
Q116
AMP
Q156
BUFFER
L103
C119,C120
L.P.F
Q155
AMP
L104
C121,C122
L.P.F
RV108 AFM 4-CH BALANCE
RV107 AFM RF LEVEL
Q154
Q153
IC101
SW4
4
Y REF SYNC
8-17
AFM,17
Y CLAMP
8-18
AFM,18
MB-317/317P

VDA-11/11P

VIDEO BLOCK

BVW-400A (J) ;#30001-30935
BVW-400A (UC) ;#10001-11053
BVW-400AP (EK) ;#40001-41567

CTDM AND C-MODULATOR

S/N J;30936 and higher
UC;11054 and higher

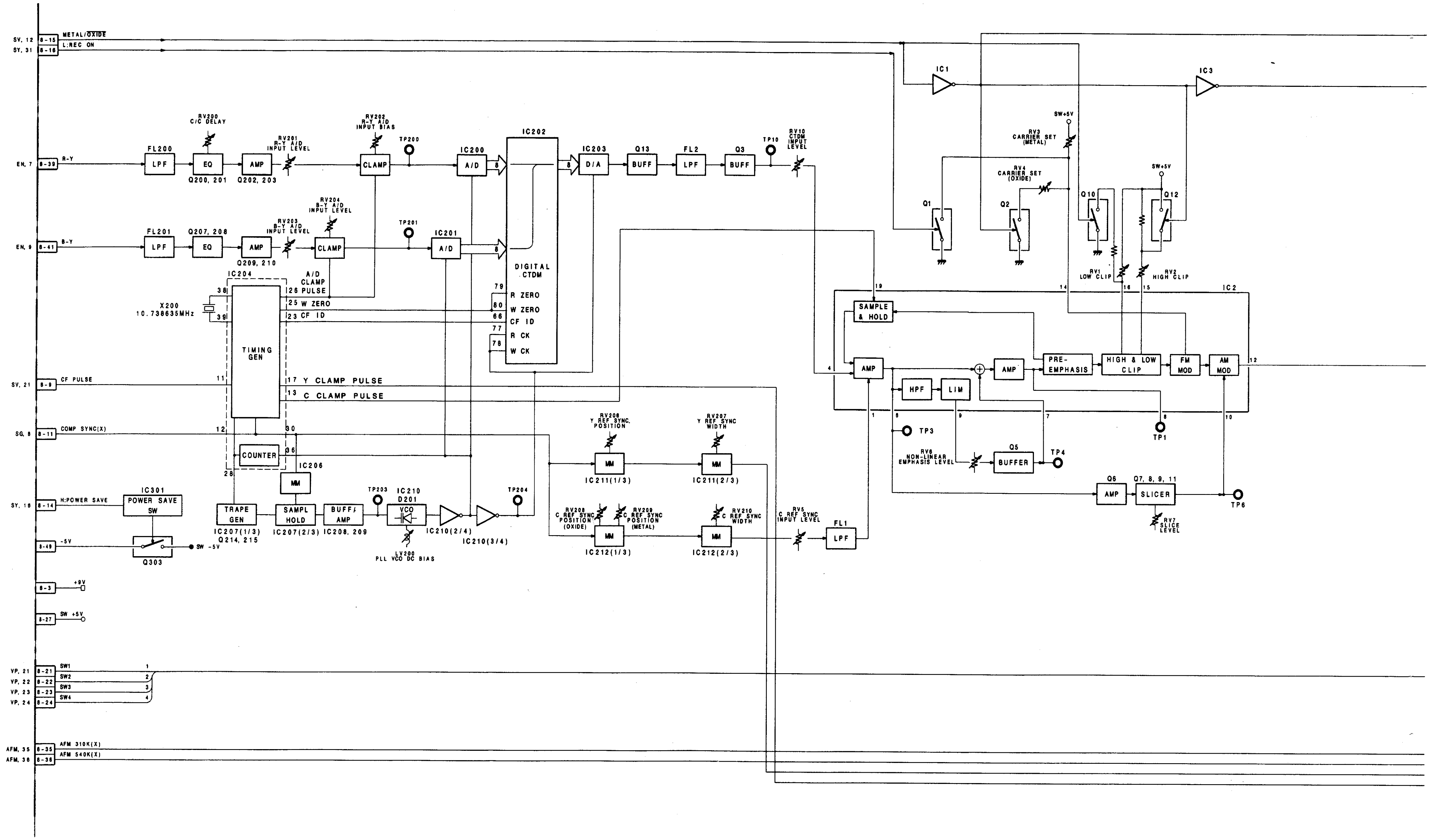
1

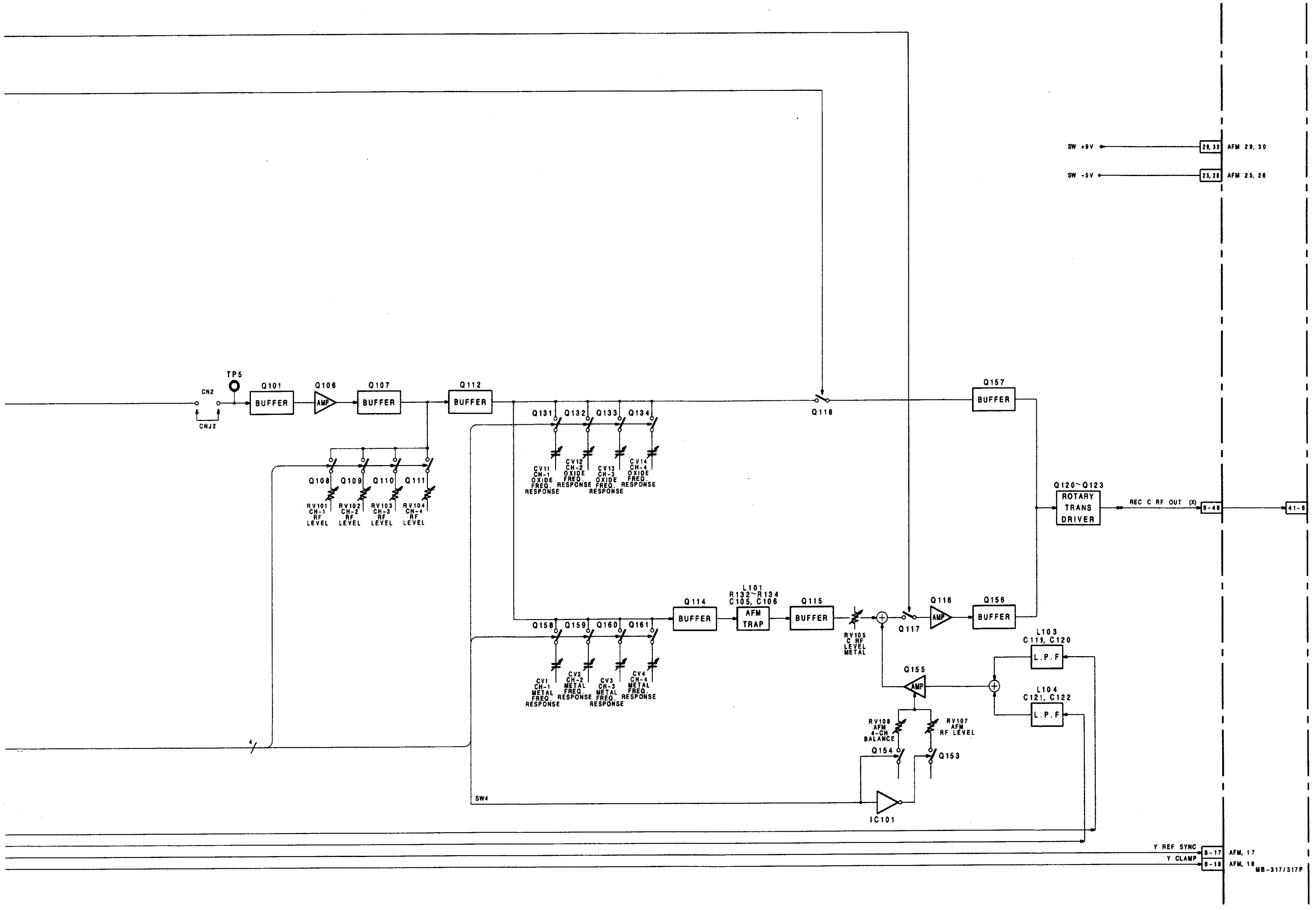
2

3

4

5


SV, 12
8-15
METAL/$\overline{\text{OXIDE}}$
SY, 31
8-16
L:REC ON
EN, 7
8-39
R-Y
EN, 9
8-41
B-Y
SV, 21
8-9
CF PULSE
SG, 8
8-11
COMP SYNC(X)
SY, 18
8-14
H:POWER SAVE
8-49
-5V
8-3
+9V
8-27
SW +5V
VP, 21
8-21
SW1
VP, 22
8-22
SW2
VP, 23
8-23
SW3
VP, 24
8-24
SW4
1
2
3
4
AFM, 35
8-35
AFM 310K(X)
AFM, 36
8-36
AFM 540K(X)
FL200
LPF
RV200
C/C DELAY
EQ
Q200, 201
AMP
Q202, 203
RV201
R-Y A/D
INPUT LEVEL
RV202
R-Y A/D
INPUT BIAS
CLAMP
TP200
IC200
A/D
8
IC202
DIGITAL
CTDM
79
R ZERO
80
W ZERO
66
CF ID
77
R CK
78
W CK
FL201
LPF
Q207, 208
EQ
AMP
Q209, 210
RV203
B-Y A/D
INPUT LEVEL
RV204
B-Y A/D
INPUT LEVEL
CLAMP
TP201
IC201
A/D
8
IC204
X200
10.738635MHz
38
39
TIMING
GEN
A/D
CLAMP
26 PULSE
25 W ZERO
23 CF ID
11
17 Y CLAMP PULSE
13 C CLAMP PULSE
12
30
COUNTER
36
28
IC206
MM
IC301
POWER SAVE
SW
Q303
SW -5V
TRAPE
GEN
IC207(1/3)
Q214, 215
SAMPL
HOLD
IC207(2/3)
BUFF/
AMP
IC208, 209
TP203
IC210
D201
VCO
LV200
PLL VCO DC BIAS
IC210(2/4)
IC210(3/4)
TP204
IC203
D/A
8
Q13
BUFF
FL2
LPF
Q3
BUFF
TP10
RV10
CTDM
INPUT
LEVEL
RV206
Y REF SYNC.
POSITION
MM
IC211(1/3)
RV207
Y REF SYNC
WIDTH
MM
IC211(2/3)
RV208
C REF SYNC
POSITION
(OXIDE)
RV209
C REF SYNC
POSITION
(METAL)
MM
IC212(1/3)
RV210
C REF SYNC
WIDTH
MM
IC212(2/3)
RV5
C REF SYNC
INPUT LEVEL
FL1
LPF
IC1
IC3
SW+5V
RV3
CARRIER SET
(METAL)
RV4
CARRIER SET
(OXIDE)
Q1
Q2
Q10
Q12
SW+5V
RV1
LOW CLIP
RV2
HIGH CLIP
19
14
16
15
IC2
SAMPLE
& HOLD
4
AMP
1
HPF
LIM
6
TP3
9
AMP
7
PRE-
EMPHASIS
HIGH & LOW
CLIP
FM
MOD
AM
MOD
12
8
TP1
10
RV6
NON-LINEAR
EMPHASIS LEVEL
Q5
BUFFER
TP4
Q6
AMP
Q7, 8, 9, 11
SLICER
RV7
SLICE
LEVEL
TP6


CN2
CNJ2
TP5
Q101
BUFFER
Q106
AMP
Q107
BUFFER
Q112
BUFFER
Q108
Q109
Q110
Q111
RV101 CH-1 RF LEVEL
RV102 CH-2 RF LEVEL
RV103 CH-3 RF LEVEL
RV104 CH-4 RF LEVEL
Q131
Q132
Q133
Q134
CV11 CH-1 OXIDE FREQ. RESPONSE
CV12 CH-2 OXIDE FREQ. RESPONSE
CV13 CH-3 OXIDE FREQ. RESPONSE
CV14 CH-4 OXIDE FREQ. RESPONSE
Q118
Q157
BUFFER
Q120~Q123
ROTARY TRANS DRIVER
REC C RF OUT (X)
8-48
41-8
SW +9V
29, 30
AFM 29, 30
SW -5V
25, 26
AFM 25, 26
Q158
Q159
Q160
Q161
CV1 CH-1 METAL FREQ. RESPONSE
CV2 CH-2 METAL FREQ. RESPONSE
CV3 CH-3 METAL FREQ. RESPONSE
CV4 CH-4 METAL FREQ. RESPONSE
Q114
BUFFER
L101
R132~R134
C105, C106
AFM TRAP
Q115
BUFFER
RV105 C RF LEVEL METAL
Q117
Q116
AMP
Q156
BUFFER
L103
C119, C120
L.P.F
Q155
AMP
L104
C121, C122
L.P.F
RV108 AFM 4-CH BALANCE
RV107 AFM RF LEVEL
Q154
Q153
IC101
SW4
4
Y REF SYNC
8-17
AFM, 17
Y CLAMP
8-18
AFM, 18
MB-317/317P

VDA-11/11P

VIDEO BLOCK

BVW-400A (J) ;#30936-
BVW-400A (UC) ;#11054-
BVW-400AP (EK) ;#41568-

Y-MODULATOR, AFM

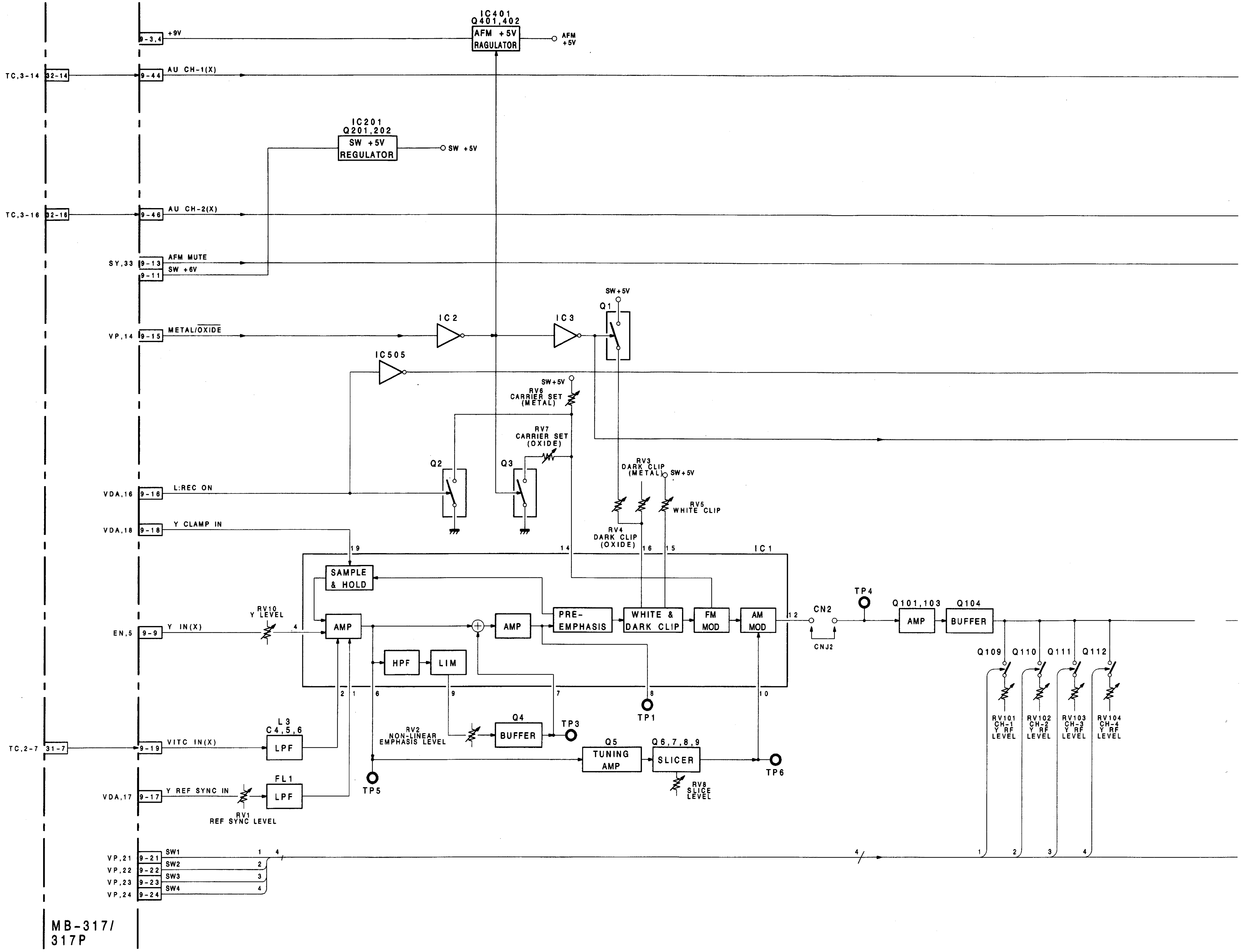
1

2

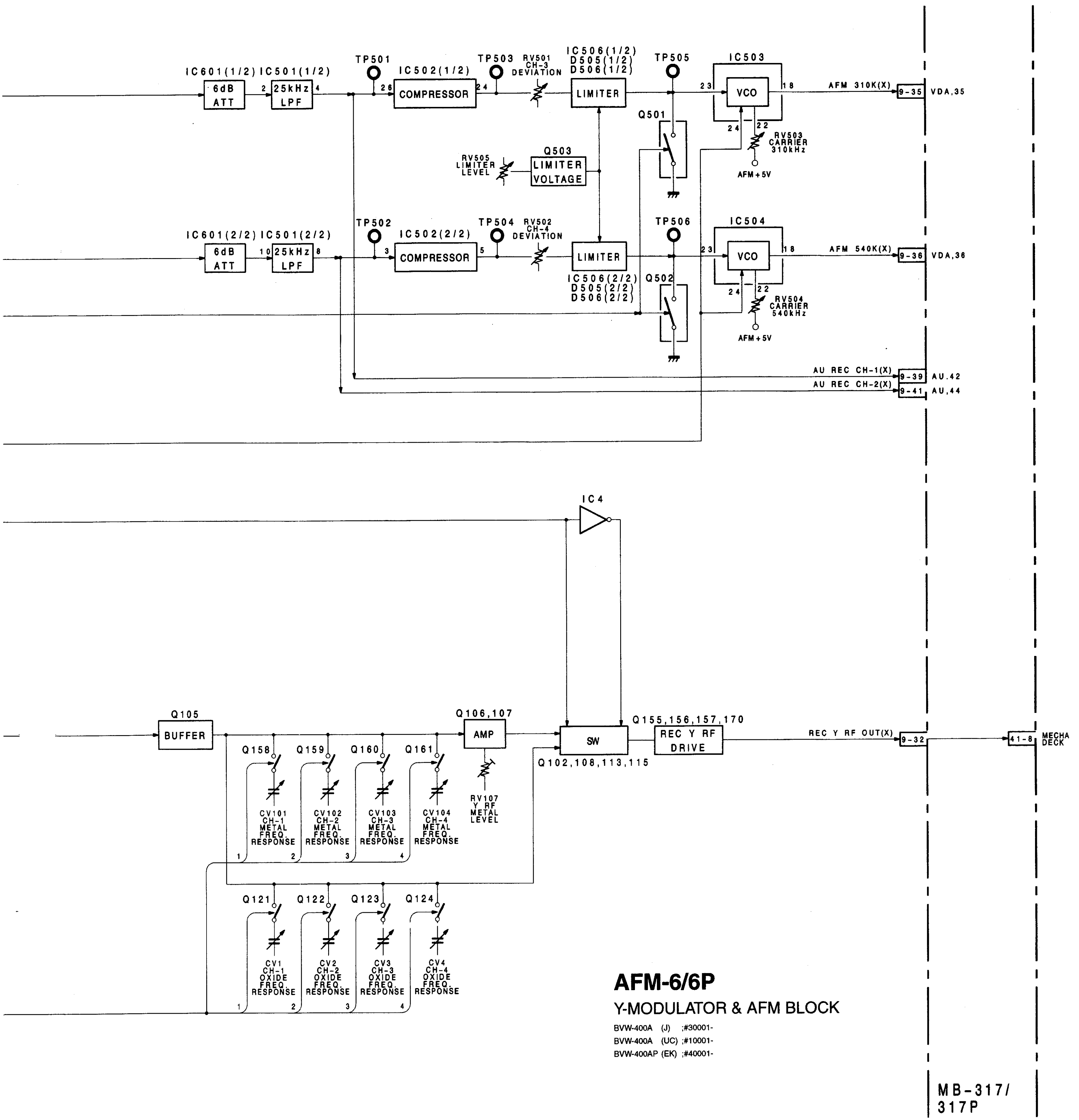
3

4

5


IC401
Q401,402
AFM +5V
RAGULATOR
AFM +5V
9-3,4
+9V
TC,3-14
32-14
9-44
AU CH-1(X)
IC201
Q201,202
SW +5V
REGULATOR
SW +5V
TC,3-16
32-16
9-46
AU CH-2(X)
SY,33
9-13
AFM MUTE
9-11
SW +6V
SW+5V
Q1
IC2
IC3
VP,14
9-15
METAL/OXIDE
IC505
SW+5V
RV6
CARRIER SET
(METAL)
RV7
CARRIER SET
(OXIDE)
Q2
Q3
RV3
DARK CLIP
(METAL)
SW+5V
RV5
WHITE CLIP
RV4
DARK CLIP
(OXIDE)
VDA,16
9-16
L:REC ON
VDA,18
9-18
Y CLAMP IN
19
14
16
15
IC1
SAMPLE
& HOLD
RV10
Y LEVEL
4
EN,5
9-9
Y IN(X)
AMP
AMP
PRE-
EMPHASIS
WHITE &
DARK CLIP
FM
MOD
AM
MOD
12
CN2
CNJ2
TP4
Q101,103
AMP
Q104
BUFFER
Q109
Q110
Q111
Q112
HPF
LIM
2
1
6
9
7
8
10
TP1
Q4
BUFFER
TP3
RV2
NON-LINEAR
EMPHASIS LEVEL
L3
C4,5,6
LPF
TC,2-7
31-7
9-19
VITC IN(X)
Q5
TUNING
AMP
Q6,7,8,9
SLICER
TP6
RV8
SLICE
LEVEL
TP5
FL1
LPF
VDA,17
9-17
Y REF SYNC IN
RV1
REF SYNC LEVEL
RV101
CH-1
Y RF
LEVEL
RV102
CH-2
Y RF
LEVEL
RV103
CH-3
Y RF
LEVEL
RV104
CH-4
Y RF
LEVEL
VP,21
9-21
SW1
VP,22
9-22
SW2
VP,23
9-23
SW3
VP,24
9-24
SW4
1
2
3
4
4
4
1
2
3
4
MB-317/
317P

A B C D E F G H

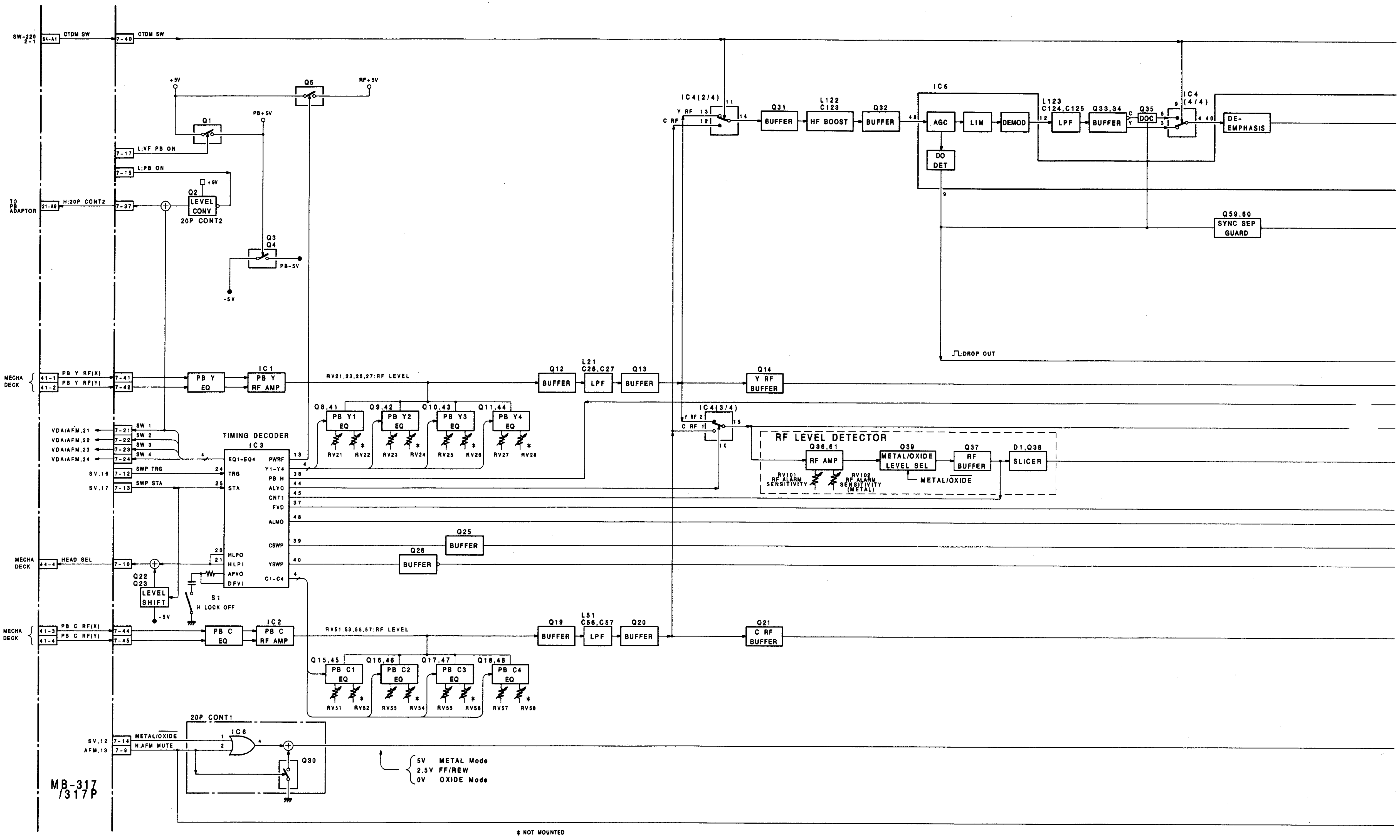

IC601(1/2)
IC501(1/2)
6dB ATT
25kHz LPF
TP501
IC502(1/2)
COMPRESSOR
TP503
RV501 CH-3 DEVIATION
IC506(1/2)
D505(1/2)
D506(1/2)
LIMITER
TP505
IC503
VCO
AFM 310K(X)
9-35
VDA,35
Q501
RV503 CARRIER 310kHz
AFM+5V
RV505 LIMITER LEVEL
Q503
LIMITER VOLTAGE
IC601(2/2)
IC501(2/2)
TP502
IC502(2/2)
TP504
RV502 CH-4 DEVIATION
TP506
IC504
AFM 540K(X)
9-36
VDA,36
IC506(2/2)
D505(2/2)
D506(2/2)
Q502
RV504 CARRIER 540kHz
AU REC CH-1(X)
9-39
AU,42
AU REC CH-2(X)
9-41
AU,44
IC4
Q105
BUFFER
Q106,107
AMP
SW
Q155,156,157,170
REC Y RF DRIVE
Q102,108,113,115
REC Y RF OUT(X)
9-32
41-8
MECHA DECK
Q158
Q159
Q160
Q161
RV107 Y RF METAL LEVEL
CV101 CH-1 METAL FREQ. RESPONSE
CV102 CH-2 METAL FREQ. RESPONSE
CV103 CH-3 METAL FREQ. RESPONSE
CV104 CH-4 METAL FREQ. RESPONSE
Q121
Q122
Q123
Q124
CV1 CH-1 OXIDE FREQ. RESPONSE
CV2 CH-2 OXIDE FREQ. RESPONSE
CV3 CH-3 OXIDE FREQ. RESPONSE
CV4 CH-4 OXIDE FREQ. RESPONSE
MB-317/ 317P
1
2
3
4
5

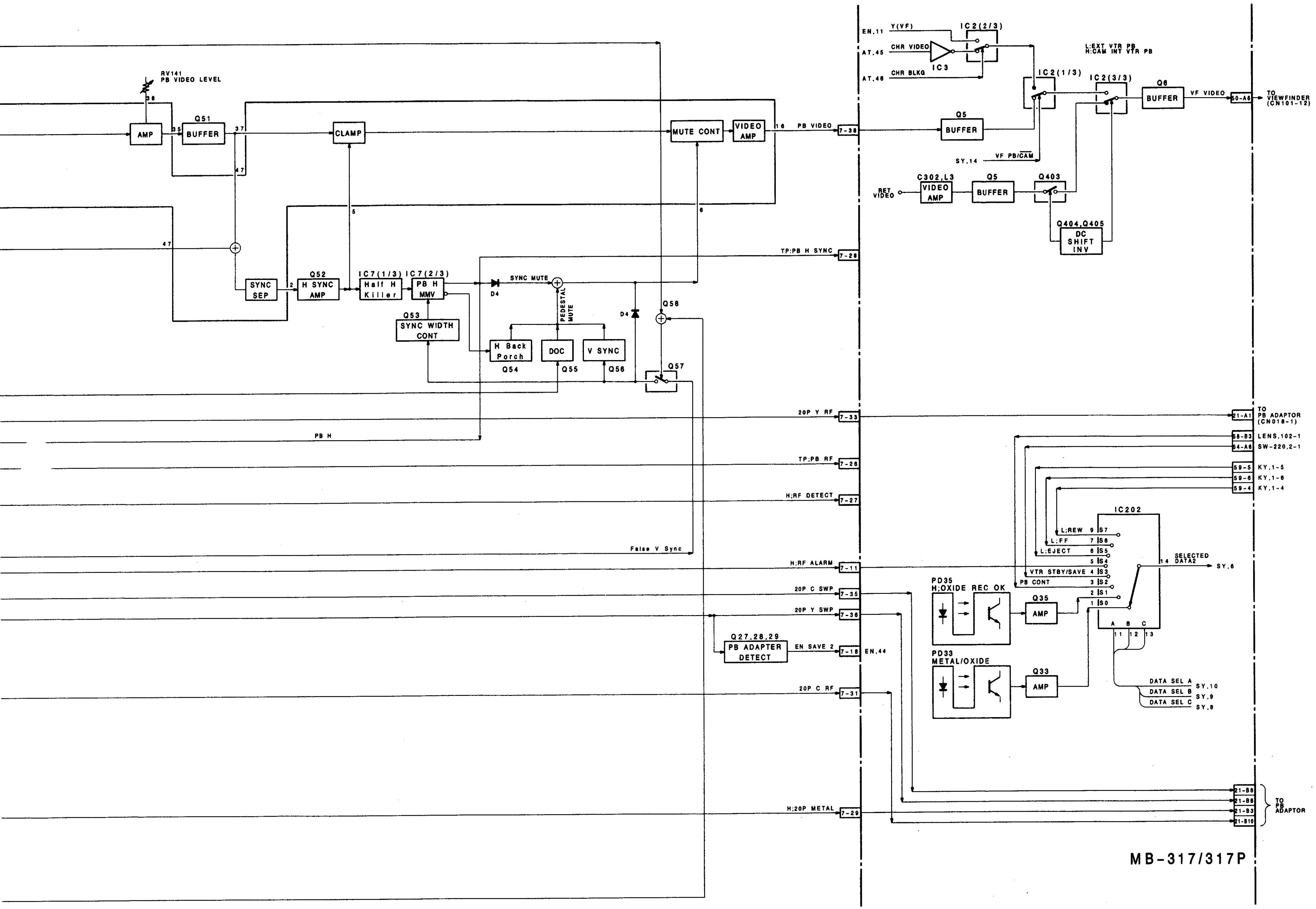
AFM-6/6P

Y-MODULATOR & AFM BLOCK

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

VIDEO PB


SW-220 2-1
84-A1
CTDM SW
7-40
CTDM SW
+5V
Q5
RF+5V
Q1
PB+5V
7-17
L;VF PB ON
7-15
L;PB ON
+9V
Q2
LEVEL CONV
20P CONT2
TO PB ADAPTOR
21-A9
H:20P CONT2
7-37
Q3 Q4
PB-5V
-5V
MECHA DECK
41-1
41-2
PB Y RF(X)
PB Y RF(Y)
7-41
7-42
PB Y EQ
IC1
PB Y RF AMP
RV21,23,25,27:RF LEVEL
Q8,41
PB Y1 EQ
Q9,42
PB Y2 EQ
Q10,43
PB Y3 EQ
Q11,44
PB Y4 EQ
RV21 RV22 RV23 RV24 RV25 RV26 RV27 RV28
VDA/AFM,21
VDA/AFM,22
VDA/AFM,23
VDA/AFM,24
7-21 7-22 7-23 7-24
SW 1
SW 2
SW 3
SW 4
SV,16
7-12
SWP TRG
SV,17
7-13
SWP STA
TIMING DECODER
IC3
EQ1-EQ4
TRG
STA
HLPO
HLPI
AFVO
DFVI
PWRF
Y1-Y4
PB H
ALYC
CNT1
FVD
ALMO
CSWP
YSWP
C1-C4
13 38 44 45 37 48 39 40 24 25 20 21 4
Q25
BUFFER
Q26
BUFFER
MECHA DECK
44-4
HEAD SEL
7-10
Q22 Q23
LEVEL SHIFT
-5V
S1
H LOCK OFF
MECHA DECK
41-3
41-4
PB C RF(X)
PB C RF(Y)
7-44
7-45
PB C EQ
IC2
PB C RF AMP
RV51,53,55,57:RF LEVEL
Q15,45
PB C1 EQ
Q16,46
PB C2 EQ
Q17,47
PB C3 EQ
Q18,48
PB C4 EQ
RV51 RV52 RV53 RV54 RV55 RV56 RV57 RV58
20P CONT1
IC6
SV,12
7-14
METAL/OXIDE
AFM,13
7-9
H;AFM MUTE
Q30
5V METAL Mode
2.5V FF/REW
0V OXIDE Mode
MB-317 /317P
Q12
BUFFER
L21 C26,C27
LPF
Q13
BUFFER
Q14
Y RF BUFFER
Q19
BUFFER
L51 C56,C57
LPF
Q20
BUFFER
Q21
C RF BUFFER
IC4(2/4)
Y RF
C RF
13 12 11 14
Q31
BUFFER
L122 C123
HF BOOST
Q32
BUFFER
IC5
48
AGC
LIM
DEMOD
DO DET
9
L123 C124,C125
LPF
Q33,34
BUFFER
Q35
DOC
IC4 (4/4)
DE-EMPHASIS
Q59,60
SYNC SEP GUARD
DROP OUT
IC4(3/4)
Y RF 2
C RF 1
15 10
RF LEVEL DETECTOR
Q36,61
RF AMP
RV101 RF ALARM SENSITIVITY
RV102 RF ALARM SENSITIVITY (METAL)
Q39
METAL/OXIDE LEVEL SEL
METAL/OXIDE
Q37
RF BUFFER
D1,Q38
SLICER
* NOT MOUNTED

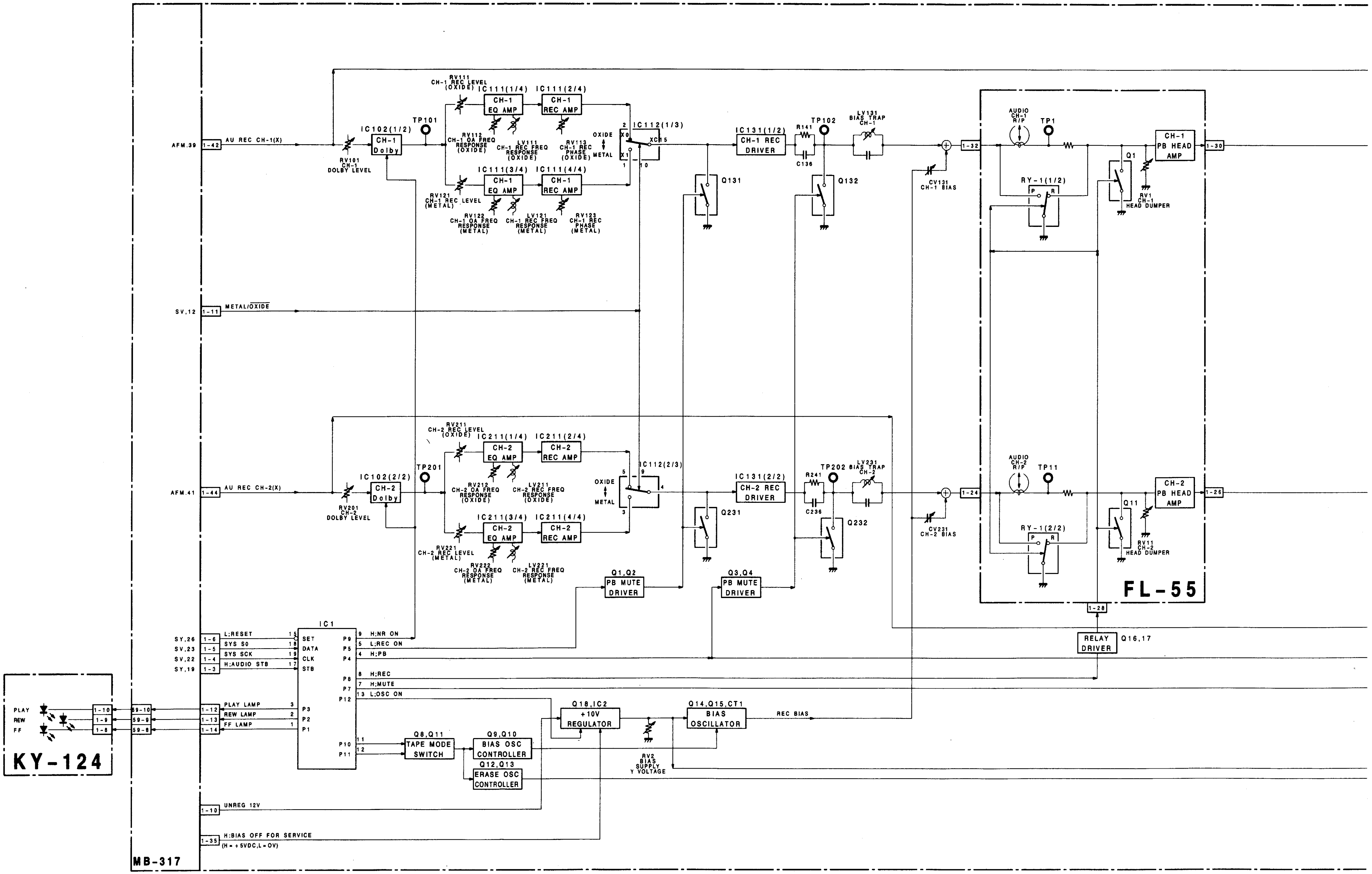

RV141
PB VIDEO LEVEL
AMP
Q51
BUFFER
35
37
47
CLAMP
MUTE CONT
VIDEO AMP
16
PB VIDEO
7-38
5
6
47
SYNC SEP
2
Q52
H SYNC AMP
IC7(1/3)
Half H Killer
IC7(2/3)
PB H MMV
Q53
SYNC WIDTH CONT
D4
SYNC MUTE
PEDESTAL MUTE
D4
Q58
H Back Porch
Q54
DOC
Q55
V SYNC
Q56
Q57
TP;PB H SYNC
7-28
20P Y RF
7-33
PB H
TP;PB RF
7-26
H;RF DETECT
7-27
False V Sync
H;RF ALARM
7-11
20P C SWP
7-35
20P Y SWP
7-36
Q27,28,29
PB ADAPTER DETECT
EN SAVE 2
7-18
EN,44
20P C RF
7-31
H;20P METAL
7-29
EN,11
Y(VF)
IC2(2/3)
AT,45
CHR VIDEO
IC3
AT,46
CHR BLKG
L:EXT VTR PB
H:CAM INT VTR PB
IC2(1/3)
IC2(3/3)
Q6
BUFFER
VF VIDEO
50-A6
TO VIEWFINDER (CN101-12)
Q5
BUFFER
SY,14
VF PB/CAM
RET VIDEO
C302,L3
VIDEO AMP
Q5
BUFFER
Q403
Q404,Q405
DC SHIFT INV
21-A1
TO PB ADAPTOR (CN018-1)
58-B3
LENS,102-1
54-A6
SW-220,2-1
59-5
KY,1-5
59-6
KY,1-6
59-4
KY,1-4
IC202
L;REW 9 S7
L;FF 7 S6
L;EJECT 6 S5
5 S4
VTR STBY/SAVE 4 S3
PB CONT 3 S2
2 S1
1 S0
14
SELECTED DATA2
SY,6
A B C
11 12 13
DATA SEL A SY,10
DATA SEL B SY,9
DATA SEL C SY,8
PD35
H;OXIDE REC OK
Q35
AMP
PD33
METAL/OXIDE
Q33
AMP
21-B5
21-B6
21-B3
21-B10
TO PB ADAPTOR
MB-317/317P

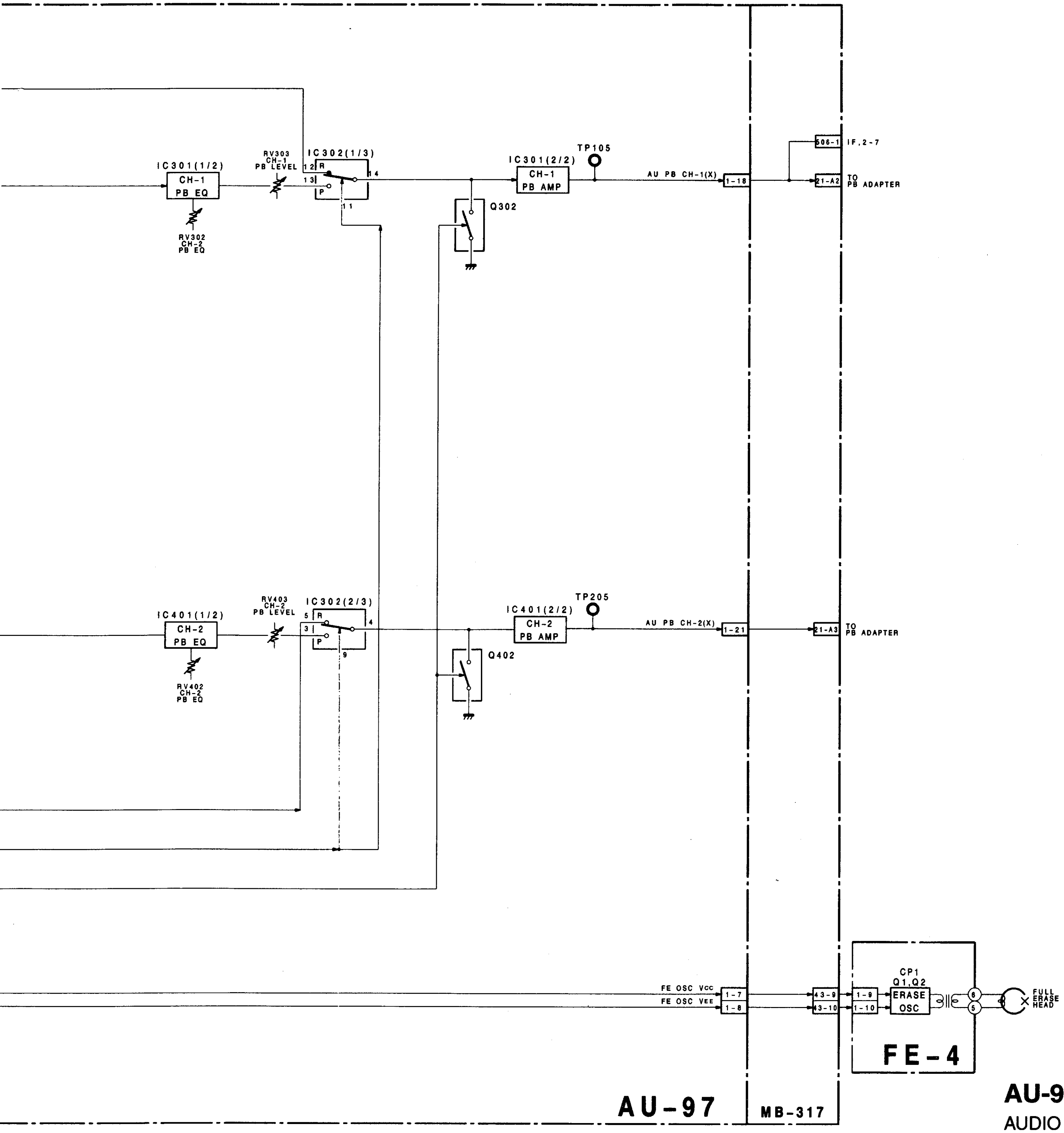
VP-24/24P

VIDEO PLAYBACK

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

AUDIO REC/PB


MB-317
AFM.39
1-42
AU REC CH-1(X)
RV101
CH-1
DOLBY LEVEL
IC102(1/2)
CH-1
Dolby
TP101
RV111
CH-1 REC LEVEL
(OXIDE)
IC111(1/4)
CH-1
EQ AMP
IC111(2/4)
CH-1
REC AMP
RV112
CH-1 OA FREQ
RESPONSE
(OXIDE)
LV111
CH-1 REC FREQ
RESPONSE
(OXIDE)
RV113
CH-1 REC
PHASE
(OXIDE)
OXIDE
METAL
IC112(1/3)
X0
X1
XCH
IC111(3/4)
CH-1
EQ AMP
IC111(4/4)
CH-1
REC AMP
RV121
CH-1 REC LEVEL
(METAL)
RV122
CH-1 OA FREQ
RESPONSE
(METAL)
LV121
CH-1 REC FREQ
RESPONSE
(METAL)
RV123
CH-1 REC
PHASE
(METAL)
Q131
IC131(1/2)
CH-1 REC
DRIVER
R141
C136
TP102
Q132
LV131
BIAS TRAP
CH-1
CV131
CH-1 BIAS
1-32
AUDIO
CH-1
R/P
TP1
RY-1(1/2)
P
R
Q1
RV1
CH-1
HEAD DUMPER
CH-1
PB HEAD
AMP
1-30
SV,12
1-11
METAL/OXIDE
AFM.41
1-44
AU REC CH-2(X)
RV201
CH-2
DOLBY LEVEL
IC102(2/2)
CH-2
Dolby
TP201
RV211
CH-2 REC LEVEL
(OXIDE)
IC211(1/4)
CH-2
EQ AMP
IC211(2/4)
CH-2
REC AMP
RV212
CH-2 OA FREQ
RESPONSE
(OXIDE)
LV211
CH-2 REC FREQ
RESPONSE
(OXIDE)
OXIDE
METAL
IC112(2/3)
IC211(3/4)
CH-2
EQ AMP
IC211(4/4)
CH-2
REC AMP
RV221
CH-2 REC LEVEL
(METAL)
RV222
CH-2 OA FREQ
RESPONSE
(METAL)
LV221
CH-2 REC FREQ
RESPONSE
(METAL)
Q231
IC131(2/2)
CH-2 REC
DRIVER
R241
C236
TP202
Q232
LV231
BIAS TRAP
CH-2
CV231
CH-2 BIAS
1-24
AUDIO
CH-2
R/P
TP11
RY-1(2/2)
P
R
Q11
RV11
CH-2
HEAD DUMPER
CH-2
PB HEAD
AMP
1-26
FL-55
1-28
RELAY
DRIVER
Q16,17
Q1,Q2
PB MUTE
DRIVER
Q3,Q4
PB MUTE
DRIVER
SY,26
SV,23
SV,22
SY,19
1-6
1-5
1-4
1-3
L;RESET
SYS S0
SYS SCK
H;AUDIO STB
IC1
SET
DATA
CLK
STB
P9
P5
P4
P8
P7
P12
H;NR ON
L;REC ON
H;PB
H;REC
H;MUTE
L;OSC ON
PLAY
REW
FF
1-10
1-9
1-8
KY-124
59-10
59-9
59-8
1-12
1-13
1-14
PLAY LAMP
REW LAMP
FF LAMP
P3
P2
P1
P10
P11
Q8,Q11
TAPE MODE
SWITCH
Q9,Q10
BIAS OSC
CONTROLLER
Q12,Q13
ERASE OSC
CONTROLLER
Q18,IC2
+10V
REGULATOR
RV2
BIAS
SUPPLY
Y VOLTAGE
Q14,Q15,CT1
BIAS
OSCILLATOR
REC BIAS
1-10
UNREG 12V
1-35
H:BIAS OFF FOR SERVICE
(H = +5VDC,L = OV)
1
2
3
4
5
A
B
C
D
E
F
G
H

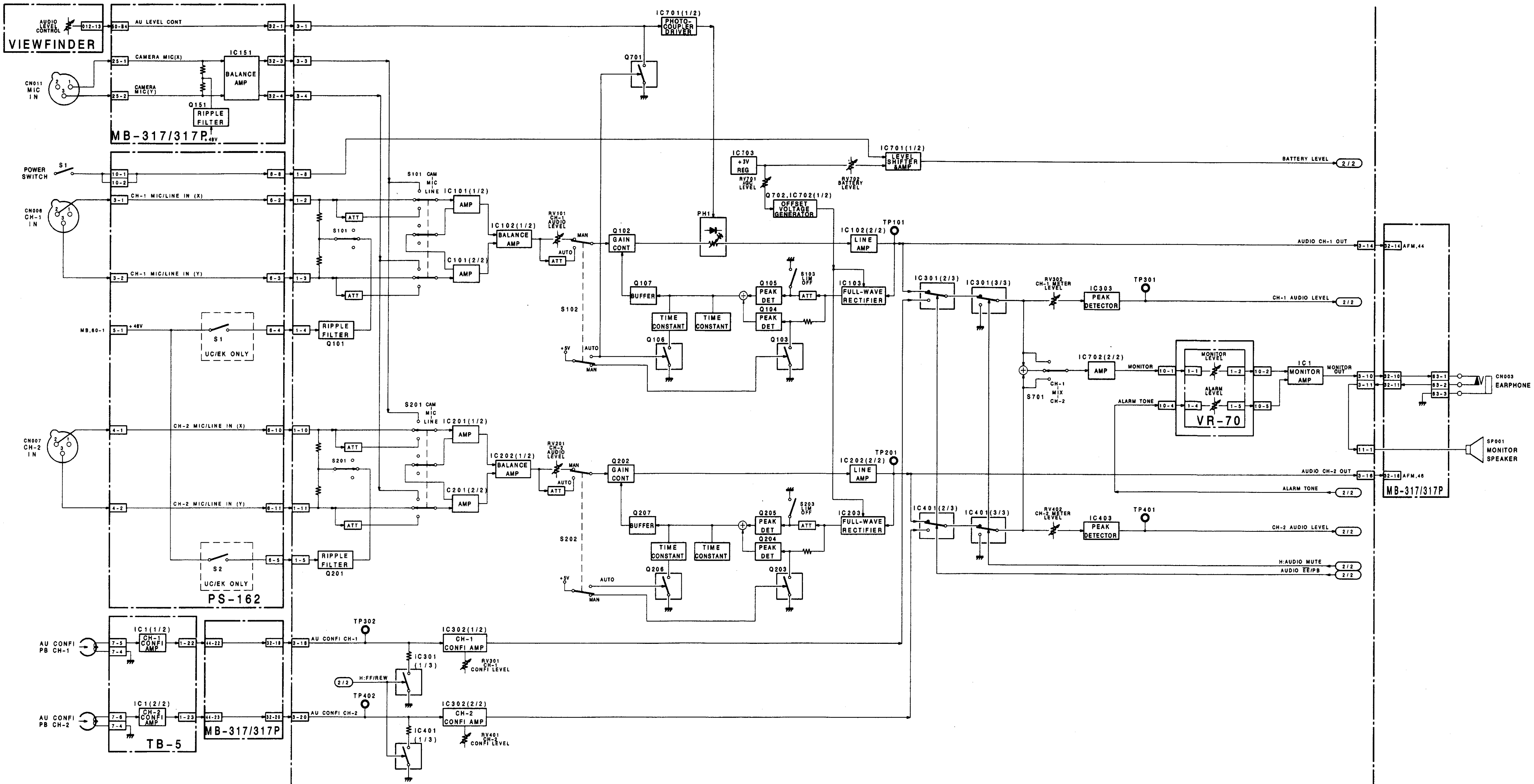

IC301(1/2)
CH-1
PB EQ
RV302
CH-2
PB EQ
RV303
CH-1
PB LEVEL
IC302(1/3)
12
13
R
P
14
11
Q302
IC301(2/2)
CH-1
PB AMP
TP105
AU PB CH-1(X)
1-18
506-1
IF,2-7
21-A2
TO
PB ADAPTER
IC401(1/2)
CH-2
PB EQ
RV402
CH-2
PB EQ
RV403
CH-2
PB LEVEL
IC302(2/3)
5
3
R
P
4
9
Q402
IC401(2/2)
CH-2
PB AMP
TP205
AU PB CH-2(X)
1-21
21-A3
TO
PB ADAPTER
FE OSC Vcc
FE OSC VEE
1-7
1-8
43-9
43-10
1-9
1-10
CP1
Q1,Q2
ERASE
OSC
6
5
FULL
ERASE
HEAD
FE-4
AU-97
MB-317
1
2
3
4
5
I
J
K
L
M
N
O
P

AU-97

AUDIO BLOCK

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-

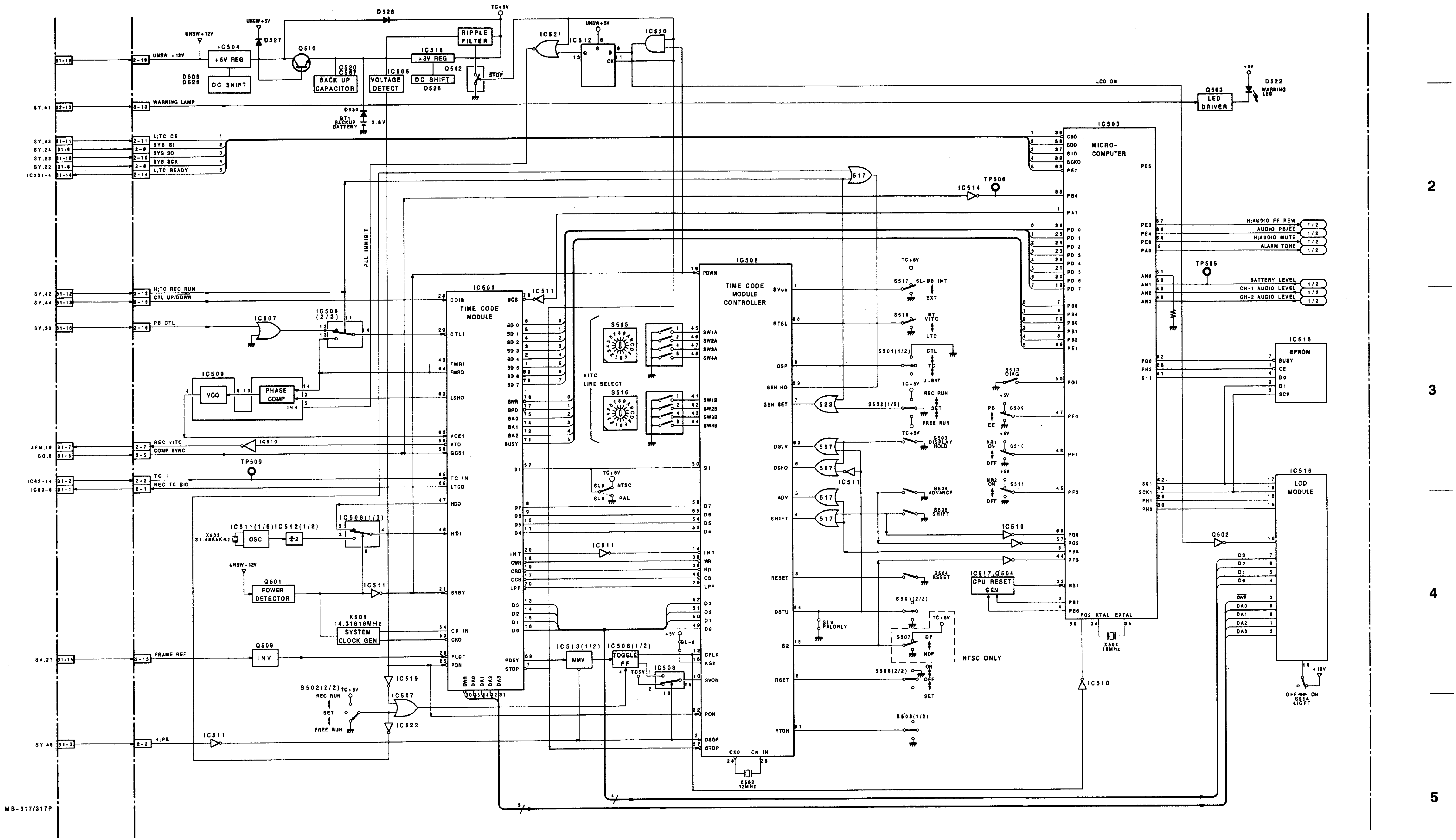
TIME CODE, LEVEL CONTROL, MONITOR, SW, I


1
2
3
4
5
VIEWFINDER
AUDIO LEVEL CONTROL
012-13
50-84
AU LEVEL CONT
32-1
3-1
CN011 MIC IN
25-1
CAMERA MIC(X)
25-2
CAMERA MIC(Y)
IC151
BALANCE AMP
32-3
32-4
3-3
3-4
Q151
RIPPLE FILTER
+48V
MB-317/317P
POWER SWITCH
S1
10-1
10-2
6-8
1-8
CN006 CH-1 IN
3-1
CH-1 MIC/LINE IN (X)
6-2
1-2
3-2
CH-1 MIC/LINE IN (Y)
6-3
1-3
MB,60-1
5-1
+48V
S1
UC/EK ONLY
6-4
1-4
RIPPLE FILTER
Q101
CN007 CH-2 IN
4-1
CH-2 MIC/LINE IN (X)
6-10
1-10
4-2
CH-2 MIC/LINE IN (Y)
6-11
1-11
S2
UC/EK ONLY
6-5
1-5
RIPPLE FILTER
Q201
PS-162
AU CONFI PB CH-1
7-5
7-4
IC1(1/2)
CH-1 CONFI AMP
1-22
44-22
32-18
3-18
AU CONFI PB CH-2
7-6
7-4
IC1(2/2)
CH-2 CONFI AMP
1-23
44-23
32-20
3-20
TB-5
MB-317/317P
S101 CAM MIC LINE
IC101(1/2)
AMP
ATT
S101
IC101(2/2)
AMP
ATT
IC102(1/2)
BALANCE AMP
RV101 CH-1 AUDIO LEVEL
MAN
AUTO
ATT
S102
+5V
AUTO
MAN
S201 CAM MIC LINE
IC201(1/2)
AMP
ATT
S201
IC201(2/2)
AMP
ATT
IC202(1/2)
BALANCE AMP
RV201 CH-2 AUDIO LEVEL
MAN
AUTO
ATT
S202
+5V
AUTO
MAN
TP302
AU CONFI CH-1
IC301 (1/3)
2/2
H:FF/REW
TP402
AU CONFI CH-2
IC401 (1/3)
IC302(1/2)
CH-1 CONFI AMP
RV301 CH-1 CONFI LEVEL
IC302(2/2)
CH-2 CONFI AMP
RV401 CH-2 CONFI LEVEL
IC701(1/2)
PHOTO-COUPLER DRIVER
Q701
PH1
IC703
+3V REG
RV701 AGC LEVEL
Q702,IC702(1/2)
OFFSET VOLTAGE GENERATOR
RV702 BATTERY LEVEL
IC701(1/2)
LEVEL SHIFTER &AMP
BATTERY LEVEL
2/2
Q102
GAIN CONT
Q107
BUFFER
TIME CONSTANT
TIME CONSTANT
Q105
PEAK DET
Q104
PEAK DET
S103 LIM OFF
ATT
Q106
Q103
IC102(2/2)
LINE AMP
TP101
IC103
FULL-WAVE RECTIFIER
Q202
GAIN CONT
Q207
BUFFER
TIME CONSTANT
TIME CONSTANT
Q205
PEAK DET
Q204
PEAK DET
S203 LIM OFF
ATT
Q206
Q203
IC202(2/2)
LINE AMP
TP201
IC203
FULL-WAVE RECTIFIER
IC301(2/3)
IC301(3/3)
RV302 CH-1 METER LEVEL
IC303
PEAK DETECTOR
TP301
CH-1 AUDIO LEVEL
2/2
S701
CH-1 MIX CH-2
IC702(2/2)
AMP
MONITOR
ALARM TONE
10-1
1-1
MONITOR LEVEL
1-2
10-2
10-4
1-4
ALARM LEVEL
1-5
10-5
VR-70
IC1
MONITOR AMP
MONITOR OUT
IC401(2/3)
IC401(3/3)
RV402 CH-2 METER LEVEL
IC403
PEAK DETECTOR
TP401
CH-2 AUDIO LEVEL
2/2
H:AUDIO MUTE
2/2
AUDIO EE/PB
2/2
ALARM TONE
2/2
AUDIO CH-1 OUT
3-14
32-14
AFM,44
3-10
3-11
32-10
32-11
63-1
63-2
63-3
CN003 EARPHONE
11-1
SP001 MONITOR SPEAKER
AUDIO CH-2 OUT
3-16
32-16
AFM,46
MB-317/317P
A
B
C
D
E
F
G
H

TC-48A/48AP (1/2)

AUDIO BLOCK

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

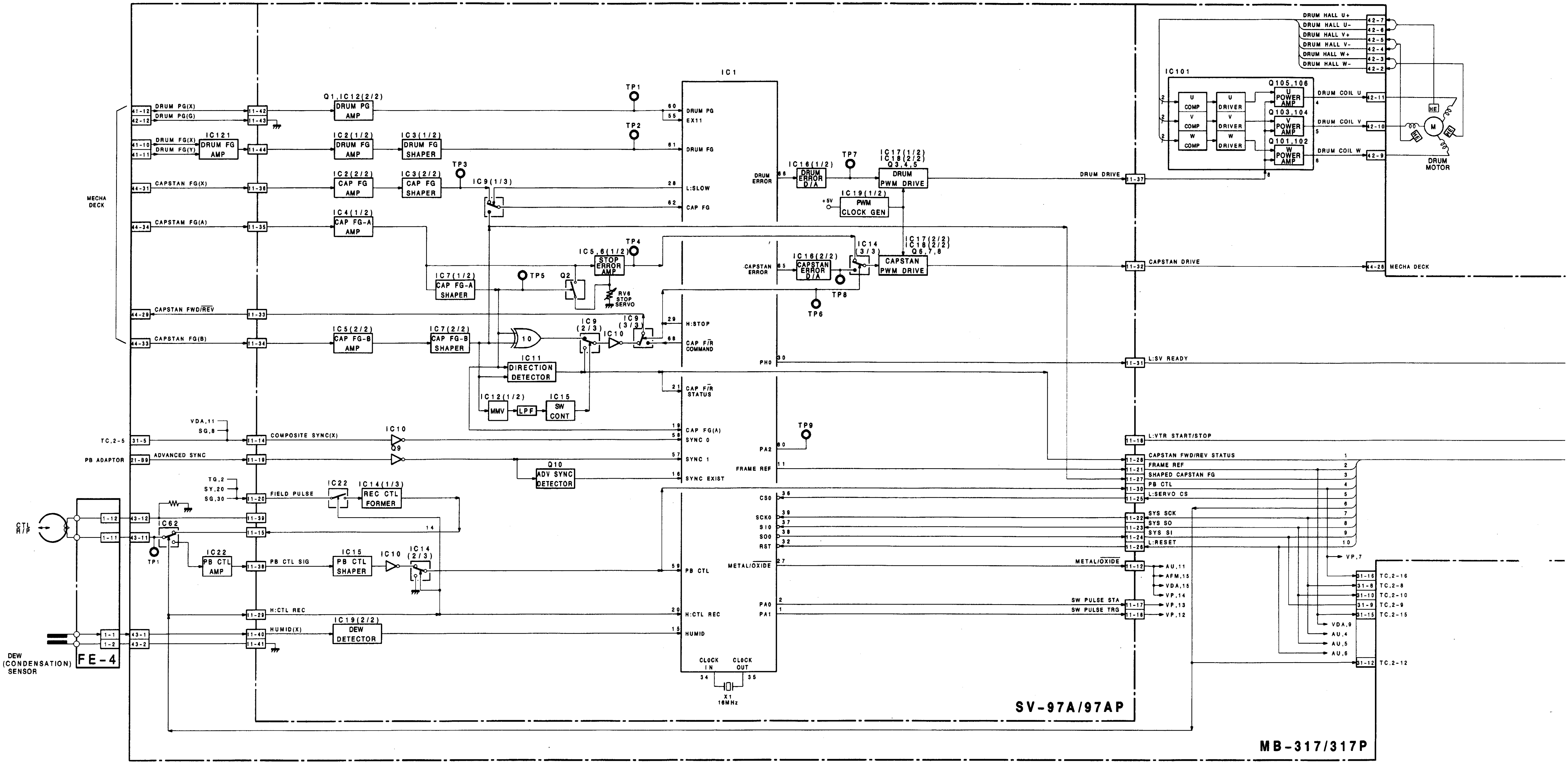

IC501
TIME CODE MODULE
IC502
TIME CODE MODULE CONTROLLER
IC503
MICRO-COMPUTER
IC504
+5V REG
DC SHIFT
Q510
BACK UP CAPACITOR
IC505
VOLTAGE DETECT
IC518
+3V REG
DC SHIFT
Q512
RIPPLE FILTER
IC521
IC512
IC520
Q503
LED DRIVER
D522
WARNING LED
IC515
EPROM
IC516
LCD MODULE
IC509
VCO
PHASE COMP
IC507
IC506 (2/3)
IC510
TP509
IC511(1/6) IC512(1/2)
OSC
÷2
IC508(1/3)
Q501
POWER DETECTOR
X501
14.31818MHz
SYSTEM CLOCK GEN
Q509
INV
IC513(1/2)
MMV
IC506(1/2)
TOGGLE FF
IC508
S515
S516
VITC LINE SELECT
S517
S518
S501(1/2)
S502(1/2)
S503
S504 ADVANCE
S505 SHIFT
S506
S510
S511
S513 DIAG
IC514
TP506
TP505
IC517, Q504
CPU RESET GEN
X504 16MHz
X502 12MHz
Q502
S514 LIGHT
NTSC ONLY
WARNING LAMP
L;TC CS
SYS SI
SYS SO
SYS SCK
L;TC READY
H;TC REC RUN
CTL UP/DOWN
PB CTL
REC VITC
COMP SYNC
TC I
REC TC SIG
FRAME REF
H;PB
H;AUDIO FF REW
AUDIO PB/EE
H;AUDIO MUTE
ALARM TONE
BATTERY LEVEL
CH-1 AUDIO LEVEL
CH-2 AUDIO LEVEL
LCD ON
PLL INHIBIT
MB-317/317P
1
2
3
4
5
I
J
K
L
M
N
O
P

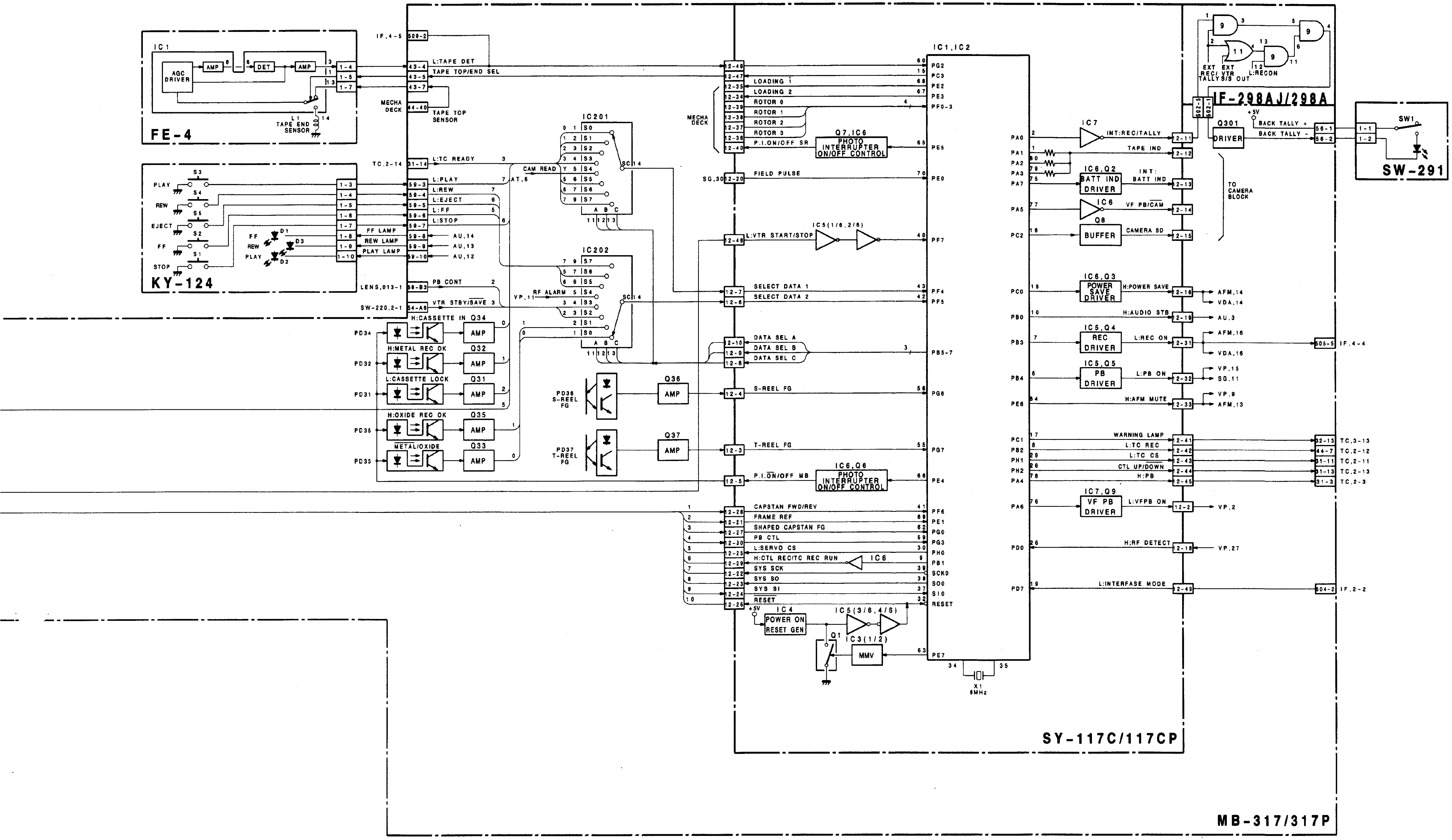
TC-48A/48AP (2/2)

TIME CODE BLOCK

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

SERVO SYSTEM
SYSTEM CONTROL

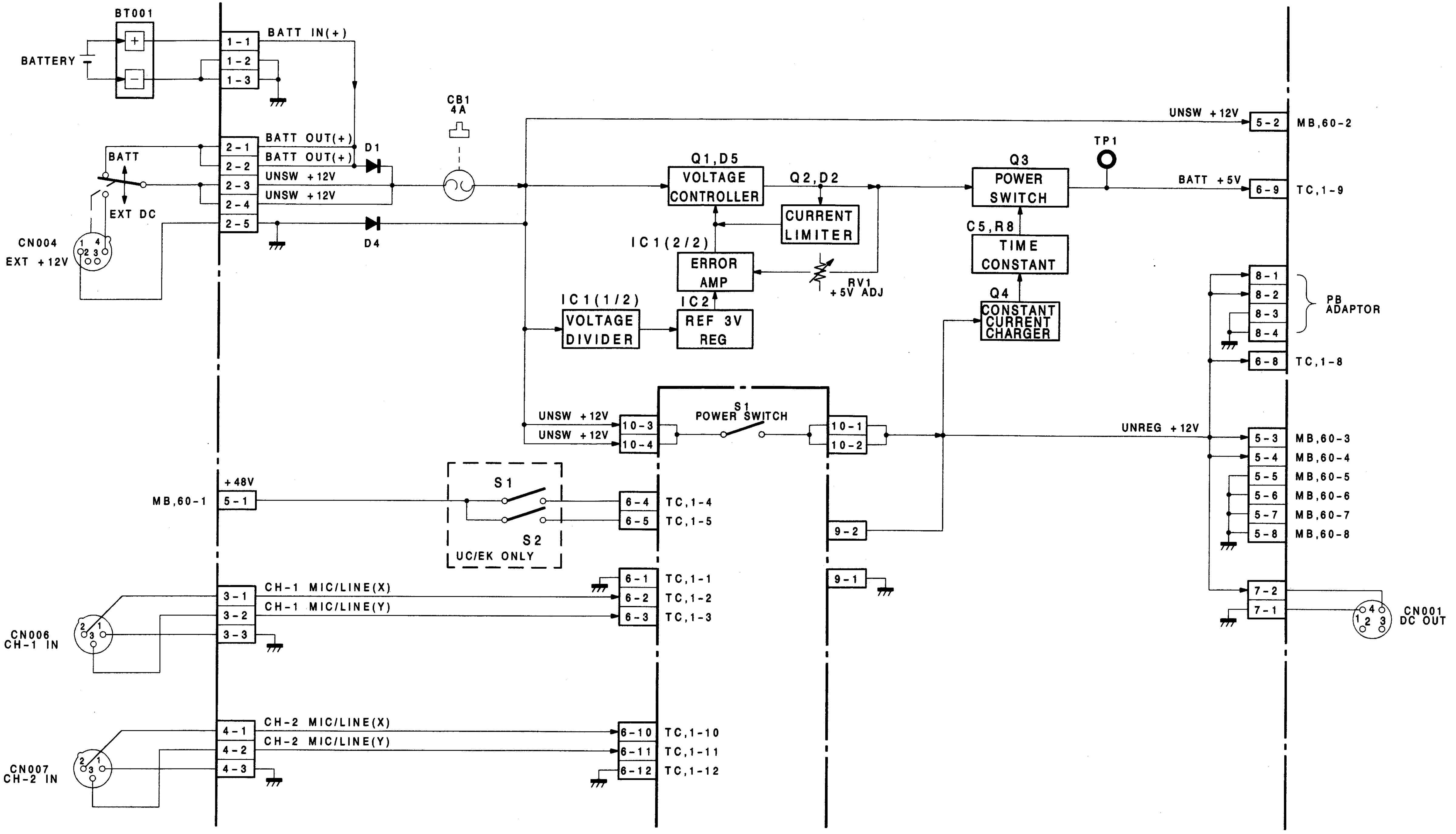

1
2
3
4
5
MECHA DECK
DRUM PG(X)
DRUM PG(G)
DRUM FG(X)
DRUM FG(Y)
CAPSTAN FG(X)
CAPSTAN FG(A)
CAPSTAN FWD/REV
CAPSTAN FG(B)
41-12
42-12
41-10
41-11
44-31
44-34
44-29
44-33
11-42
11-43
11-44
11-36
11-35
11-33
11-34
IC121 DRUM FG AMP
Q1, IC12(2/2) DRUM PG AMP
IC2(1/2) DRUM FG AMP
IC3(1/2) DRUM FG SHAPER
IC2(2/2) CAP FG AMP
IC3(2/2) CAP FG SHAPER
IC4(1/2) CAP FG-A AMP
IC7(1/2) CAP FG-A SHAPER
IC5(2/2) CAP FG-B AMP
IC7(2/2) CAP FG-B SHAPER
IC9(1/3)
IC9(2/3)
IC9(3/3)
IC10
IC11 DIRECTION DETECTOR
IC12(1/2) MMV
LPF
IC15 SW CONT
IC5,6(1/2) STOP ERROR AMP
Q2
RV6 STOP SERVO
TP1
TP2
TP3
TP4
TP5
TP6
TP7
TP8
TP9
IC1
DRUM PG
EX11
DRUM FG
L:SLOW
CAP FG
H:STOP
CAP F/R COMMAND
CAP F/R STATUS
CAP FG(A)
SYNC 0
SYNC 1
SYNC EXIST
PB CTL
H:CTL REC
HUMID
DRUM ERROR
CAPSTAN ERROR
PH0
PA2
FRAME REF
CS0
SCK0
SI0
SO0
RST
METAL/OXIDE
PA0
PA1
CLOCK IN
CLOCK OUT
X1 16MHz
IC16(1/2) DRUM ERROR D/A
IC16(2/2) CAPSTAN ERROR D/A
IC17(1/2) IC18(2/2) Q3,4,5 DRUM PWM DRIVE
IC19(1/2) PWM CLOCK GEN
+5V
IC17(2/2) IC18(2/2) Q6,7,8 CAPSTAN PWM DRIVE
IC14 (3/3)
DRUM DRIVE
CAPSTAN DRIVE
L:SV READY
L:VTR START/STOP
CAPSTAN FWD/REV STATUS
FRAME REF
SHAPED CAPSTAN FG
PB CTL
L:SERVO CS
SYS SCK
SYS SO
SYS SI
L:RESET
METAL/OXIDE
SW PULSE STA
SW PULSE TRG
11-37
11-32
11-31
11-18
11-28
11-21
11-27
11-30
11-25
11-22
11-23
11-24
11-26
11-12
11-17
11-16
DRUM HALL U+
DRUM HALL U-
DRUM HALL V+
DRUM HALL V-
DRUM HALL W+
DRUM HALL W-
42-7
42-6
42-5
42-4
42-3
42-2
IC101
U COMP
V COMP
W COMP
U DRIVER
V DRIVER
W DRIVER
Q105,106 U POWER AMP
Q103,104 V POWER AMP
Q101,102 W POWER AMP
DRUM COIL U
DRUM COIL V
DRUM COIL W
42-11
42-10
42-9
HE
M
DRUM MOTOR
44-28 MECHA DECK
VP,7
AU,11
AFM,15
VDA,15
VP,14
VP,13
VP,12
VDA,9
AU,4
AU,5
AU,6
31-16 TC,2-16
31-8 TC,2-8
31-10 TC,2-10
31-9 TC,2-9
31-15 TC,2-15
31-12 TC,2-12
VDA,11
SG,8
TC,2-5
31-5
COMPOSITE SYNC(X)
11-14
IC10
Q9
PB ADAPTOR
21-B9
ADVANCED SYNC
11-19
Q10 ADV SYNC DETECTOR
TG,2
SY,20
SG,30
11-20
FIELD PULSE
IC22
IC14(1/3) REC CTL FORMER
11-39
11-15
CTL R/P
1-12
1-11
43-12
43-11
IC62
TP1
IC22 PB CTL AMP
11-38
PB CTL SIG
IC15 PB CTL SHAPER
IC10
IC14 (2/3)
11-29
H:CTL REC
1-1
1-2
43-1
43-2
11-40
11-41
HUMID(X)
IC19(2/2) DEW DETECTOR
DEW (CONDENSATION) SENSOR
FE-4
SV-97A/97AP
MB-317/317P
A
B
C
D
E
F
G
H


FE-4
IC1
AGC DRIVER
AMP
DET
AMP
L1 TAPE END SENSOR
KY-124
S3 PLAY
S4 REW
S5 EJECT
S2 FF
S1 STOP
D1 FF
D3 REW
D2 PLAY
IF,4-5
L:TAPE DET
TAPE TOP/END SEL
MECHA DECK
TAPE TOP SENSOR
TC,2-14
L:TC READY
L:PLAY
L:REW
L:EJECT
L:FF
L:STOP
FF LAMP
REW LAMP
PLAY LAMP
AU,14
AU,13
AU,12
LENS,013-1
PB CONT
SW-220,2-1
VTR STBY/SAVE
CAM READ
AT,6
RF ALARM
VP,11
IC201
IC202
H:CASSETTE IN Q34
H:METAL REC OK Q32
L:CASSETTE LOCK Q31
H:OXIDE REC OK Q35
METAL/OXIDE Q33
AMP
PD34
PD32
PD31
PD35
PD33
PD36 S-REEL FG
PD37 T-REEL FG
Q36 AMP
Q37 AMP
LOADING 1
LOADING 2
ROTOR 0
ROTOR 1
ROTOR 2
ROTOR 3
P.I.ON/OFF SR
Q7,IC6 PHOTO INTERRUPTER ON/OFF CONTROL
SG,30
FIELD PULSE
IC5(1/6,2/6)
L:VTR START/STOP
SELECT DATA 1
SELECT DATA 2
DATA SEL A
DATA SEL B
DATA SEL C
S-REEL FG
T-REEL FG
P.I.ON/OFF MB
IC6,Q6 PHOTO INTERRUPTER ON/OFF CONTROL
CAPSTAN FWD/REV
FRAME REF
SHAPED CAPSTAN FG
PB CTL
L:SERVO CS
H:CTL REC/TC REC RUN
IC6
SYS SCK
SYS SO
SYS SI
RESET
+5V
IC4 POWER ON RESET GEN
IC5(3/6,4/6)
Q1
IC3(1/2)
MMV
IC1,IC2
PG2 PC3 PE2 PE3 PF0-3 PE5 PE0 PF7 PF4 PF5 PB5-7 PG6 PG7 PE4 PF6 PE1 PG0 PG3 PH0 PB1 SCK0 SO0 SI0 RESET PE7
X1 8MHz
PA0 PA1 PA2 PA3 PA7 PA5 PC2 PC0 PB0 PB3 PB4 PE6 PC1 PB2 PH1 PH2 PA4 PA6 PD0 PD7
IC7
INT:REC/TALLY
TAPE IND
IC6,Q2 BATT IND DRIVER
INT: BATT IND
IC6
VF PB/CAM
Q8 BUFFER
CAMERA SD
TO CAMERA BLOCK
IC6,Q3 POWER SAVE DRIVER
H:POWER SAVE
AFM,14
VDA,14
H:AUDIO STB
AU,3
IC5,Q4 REC DRIVER
L:REC ON
AFM,16
VDA,16
IF,4-4
IC5,Q5 PB DRIVER
L:PB ON
VP,15
SG,11
H:AFM MUTE
VP,9
AFM,13
WARNING LAMP
L:TC REC
L:TC CS
CTL UP/DOWN
H:PB
TC,3-13
TC,2-12
TC,2-11
TC,2-13
TC,2-3
IC7,Q9 VF PB DRIVER
L:VFPB ON
VP,2
H:RF DETECT
VP,27
L:INTERFASE MODE
IF,2-2
EXT REC/TALLY
EXT VTR S/S OUT
L:RECON
IF-298AJ/298A
Q301 DRIVER
BACK TALLY +
BACK TALLY -
SW1
SW-291
SY-117C/117CP
MB-317/317P

SYSCON/SERVO BLOCK

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

POWER DISTRIBUTOR

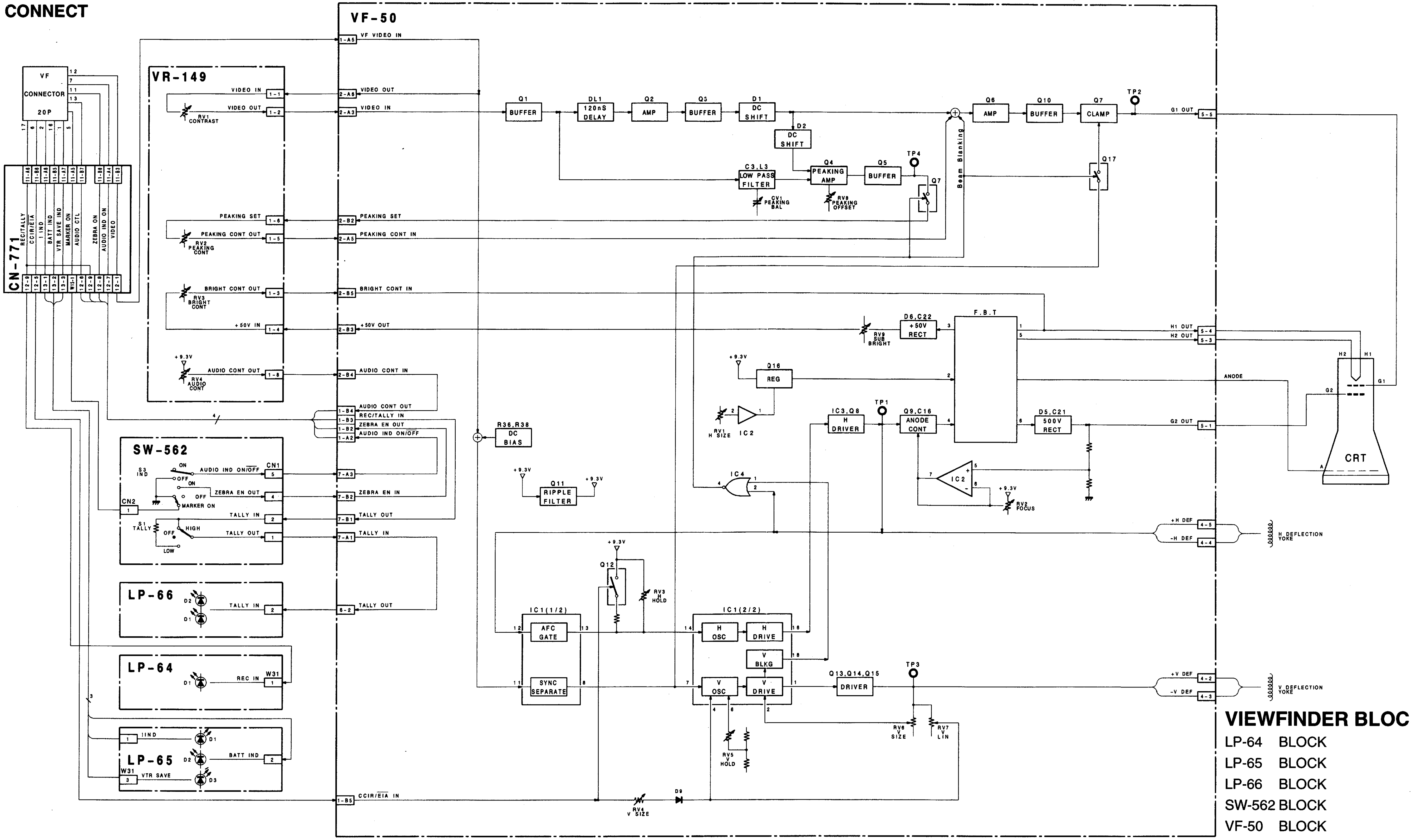

BT001
BATTERY
BATT IN(+)
1-1
1-2
1-3
BATT OUT(+)
BATT OUT(+)
UNSW +12V
UNSW +12V
2-1
2-2
2-3
2-4
2-5
BATT
EXT DC
D1
D4
CN004
EXT +12V
1 4
2 3
CB1
4A
UNSW +12V
5-2
MB,60-2
TP1
Q1,D5
VOLTAGE CONTROLLER
Q2,D2
CURRENT LIMITER
Q3
POWER SWITCH
BATT +5V
6-9
TC,1-9
IC1(2/2)
ERROR AMP
RV1
+5V ADJ
C5,R8
TIME CONSTANT
Q4
CONSTANT CURRENT CHARGER
IC1(1/2)
VOLTAGE DIVIDER
IC2
REF 3V REG
8-1
8-2
8-3
8-4
PB ADAPTOR
6-8
TC,1-8
S1
POWER SWITCH
UNSW +12V
UNSW +12V
10-3
10-4
10-1
10-2
UNREG +12V
5-3
5-4
5-5
5-6
5-7
5-8
MB,60-3
MB,60-4
MB,60-5
MB,60-6
MB,60-7
MB,60-8
+48V
MB,60-1
5-1
S1
S2
UC/EK ONLY
6-4
6-5
TC,1-4
TC,1-5
9-2
9-1
6-1
6-2
6-3
TC,1-1
TC,1-2
TC,1-3
CH-1 MIC/LINE(X)
CH-1 MIC/LINE(Y)
3-1
3-2
3-3
CN006
CH-1 IN
7-2
7-1
CN001
DC OUT
CH-2 MIC/LINE(X)
CH-2 MIC/LINE(Y)
4-1
4-2
4-3
CN007
CH-2 IN
6-10
6-11
6-12
TC,1-10
TC,1-11
TC,1-12

PS-162 (J) /162

POWER SUPPLY BLOCK

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

REC LED
BATT/TALLY, VTR SAVE LED
FRONT TALLY LED
SWITCH BOARD
VIEWFINDER
VOLUME CONTROL
CONNECT


VF-50
VF CONNECTOR 20P
CN-771
REC/TALLY
CCIR/EIA
I IND
BATT IND
VTR SAVE IND
MARKER ON
AUDIO CTL
ZEBRA ON
AUDIO IND ON
VIDEO
VR-149
VIDEO IN
VIDEO OUT
RV1 CONTRAST
PEAKING SET
PEAKING CONT OUT
RV2 PEAKING CONT
BRIGHT CONT OUT
RV3 BRIGHT CONT
+50V IN
+9.3V
AUDIO CONT OUT
RV4 AUDIO CONT
VF VIDEO IN
VIDEO OUT
VIDEO IN
PEAKING SET
PEAKING CONT IN
BRIGHT CONT IN
+50V OUT
AUDIO CONT IN
AUDIO CONT OUT
REC/TALLY IN
ZEBRA EN OUT
AUDIO IND ON/OFF
ZEBRA EN IN
TALLY OUT
TALLY IN
CCIR/EIA IN
SW-562
S3 IND
ON
OFF
AUDIO IND ON/OFF
ZEBRA EN OUT
MARKER ON
CN1
CN2
S1 TALLY
HIGH
LOW
TALLY IN
TALLY OUT
LP-66
D2
D1
TALLY IN
LP-64
REC IN
W31
LP-65
I IND
BATT IND
VTR SAVE
D3
Q1 BUFFER
DL1 120nS DELAY
Q2 AMP
Q5 BUFFER
D1 DC SHIFT
D2 DC SHIFT
C3,L3 LOW PASS FILTER
CV1 PEAKING BAL
Q4 PEAKING AMP
RV8 PEAKING OFFSET
Q5 BUFFER
TP4
Q7
Beam Blanking
Q6 AMP
Q10 BUFFER
Q7 CLAMP
TP2
Q17
G1 OUT
R36,R38 DC BIAS
+9.3V
Q11 RIPPLE FILTER
D6,C22 +50V RECT
RV9 SUB BRIGHT
F.B.T
H1 OUT
H2 OUT
Q16 REG
RV1 H SIZE
IC2
TP1
IC3,Q8 H DRIVER
Q9,C16 ANODE CONT
D5,C21 500V RECT
G2 OUT
ANODE
IC2
RV2 FOCUS
IC4
CRT
H2
H1
G2
G1
A
+H DEF
-H DEF
H DEFLECTION YOKE
Q12
RV3 H HOLD
IC1(1/2)
AFC GATE
SYNC SEPARATE
IC1(2/2)
H OSC
H DRIVE
V BLKG
V OSC
V DRIVE
Q13,Q14,Q15 DRIVER
TP3
+V DEF
-V DEF
V DEFLECTION YOKE
RV6 V SIZE
RV7 V LIN
RV5 HOLD
RV4 V SIZE
D9
1
2
3
4
5
I
J
K
L
M
N
O
P

VIEWFINDER BLOCK

LP-64 BLOCK
LP-65 BLOCK
LP-66 BLOCK
SW-562 BLOCK
VF-50 BLOCK
VR-149 BLOCK
CN-771 BLOCK

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

SECTION 10

SEMICONDUCTOR ELECTRODES

ここに記載されているIC、トランジスタ、ダイオードは、それぞれの機能を等価的に表わしたものです。したがって互換性を表わすものではありません。(互換性のない型名が併記されている事もあります。) 部品の交換をする時は、SPARE PARTSの章を参照して下さい。

ICs, transistors and diodes whoses functions are equivalent are described here. Therefore, incompatible device names may be described together. For parts replacement, refer to the Spare Parts section in this manual.

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CXD8042Q	10-15
CXD8154AM	10-15
CXD8154BM	10-15
CXK1011P	10-16
CXP80116	10-16
HA11423MP	10-17
HD14053BFP	10-17
HD63P05Y0	10-18
LA7205M	10-18
LM2903M	10-19
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MC14011BF	10-19
MC14013BF	10-19
MC14046BF	10-19
MC14051BF	10-20
MC14069UBF	10-20
MC14070BF	10-20
MC14071BF	10-20
MC14081BF	10-20
MC14538BF	10-20
MC74HC4049F	10-20
MC74HC4538AF	10-21
MN1237AD	10-21
NJM062M	10-21
NJM064M	10-21
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RC1496M	10-21
RC2041MD	10-22
RC2043MD	10-22
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TC4030BFHB	10-22
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TC4S01F	10-23
TC4S11F	10-23
TC4S30F	10-23
TC4S69F	10-23
TC4S71F	10-24
TC4S81F	10-24
TC4SU69F	10-23
TC50H001F	10-24
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TC74HC4538AF	10-21
TC7S08F	10-24
TL062CPS	10-21
TL064CNS	10-21
TL072CPS	10-24
TL7700CPS	10-24
UPC1663G	10-24
UPC311G2	10-24
UPC358G2	10-24
UPC4558G2	10-22
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等価回路はICメーカーのData Bookに従いました。

The circuit diagram of each IC is obtained from the IC data book published by the manufacturer.

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HSM88AS	10-27
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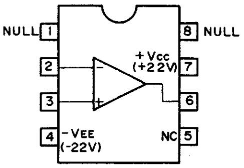
HZ?ALL	10-27
HZ?B?L	10-27
HZ?BLL	10-27
HZS?ALL	10-27
HZS??JB?	10-27
HZS??L	10-27
RD??ESB?	10-27
RD??FB?	10-27
RD??M	10-27
SB01-05CP	10-27
U05E	10-27
V09C	10-27
V11?	10-27

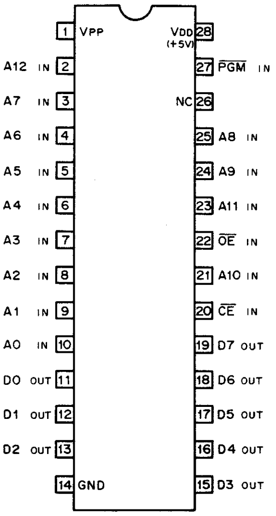
AD707JR (ANALOG DEVICES) FLAT PACKAGE

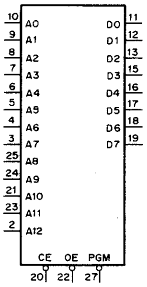
OPERATIONAL AMPLIFIER
- TOP VIEW -

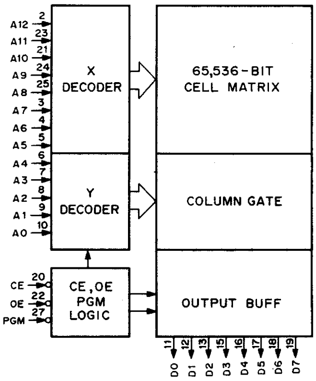

NULL 1
2
3
4 -VEE (-22V)
8 NULL
+Vcc (+22V) 7
6
NC 5

AM27C64-200DC (AMD) (ACCESS TIME = 200nS)

C-MOS 64K (8K×8)-BIT UV ERASABLE PROM WITH 3-STATE OUTPUT
- TOP VIEW -


1 VPP
A12 IN 2
A7 IN 3
A6 IN 4
A5 IN 5
A4 IN 6
A3 IN 7
A2 IN 8
A1 IN 9
A0 IN 10
D0 OUT 11
D1 OUT 12
D2 OUT 13
14 GND
VDD (+5V) 28
27 PGM IN
NC 26
25 A8 IN
24 A9 IN
23 A11 IN
22 OE IN
21 A10 IN
20 CE IN
19 D7 OUT
18 D6 OUT
17 D5 OUT
16 D4 OUT
15 D3 OUT


10 A0
9 A1
8 A2
7 A3
6 A4
5 A5
4 A6
3 A7
25 A8
24 A9
21 A10
23 A11
2 A12
D0 11
D1 12
D2 13
D3 15
D4 16
D5 17
D6 18
D7 19
CE OE PGM
20 22 27


A12 2
A11 23
A10 21
A9 24
A8 25
A7 3
A6 4
A5 5
A4 6
A3 7
A2 8
A1 9
A0 10
X DECODER
Y DECODER
65,536-BIT CELL MATRIX
COLUMN GATE
CE 20
OE 22
PGM 27
CE, OE PGM LOGIC
OUTPUT BUFF
11 D0
12 D1
13 D2
15 D3
16 D4
17 D5
18 D6
19 D7

A0 – A12 ; ADDRESS INPUTS
CE ; CHIP ENABLE INPUT
D0 – D7 ; DATA OUTPUTS
OE ; OUTPUT ENABLE INPUT
PGM ; PROGRAM ENABLE INPUT
VPP ; PROGRAM SUPPLY VOLTAGE

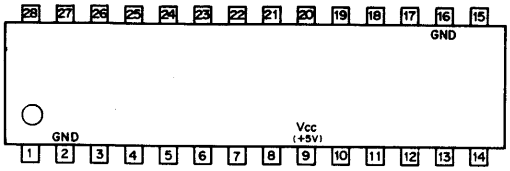
A0	A9	CE	OE	PGM	VPP	Dn	FUNCTION	
X	X	0	0	X	+ 5V	D OUT	READ	
X	X	0	1	X	+ 5V	HI – Z	OUTPUT DISABLE	
X	X	1	X	X	+ 5V	HI – Z	STANDBY	
X	X	0	X	0	+ 12.5V	D IN	PGM	
X	X	0	0	1	+ 12.5V	D OUT	PGM VERIFY	
X	X	1	X	X	+ 12.5V	HI – Z	PGM INH	
0	1	0	0	X	+ 5V	01H	MAKER CODE	* AUTO SELECT
1	1	0	0	X	+ 5V	15H	DEVICE CODE	

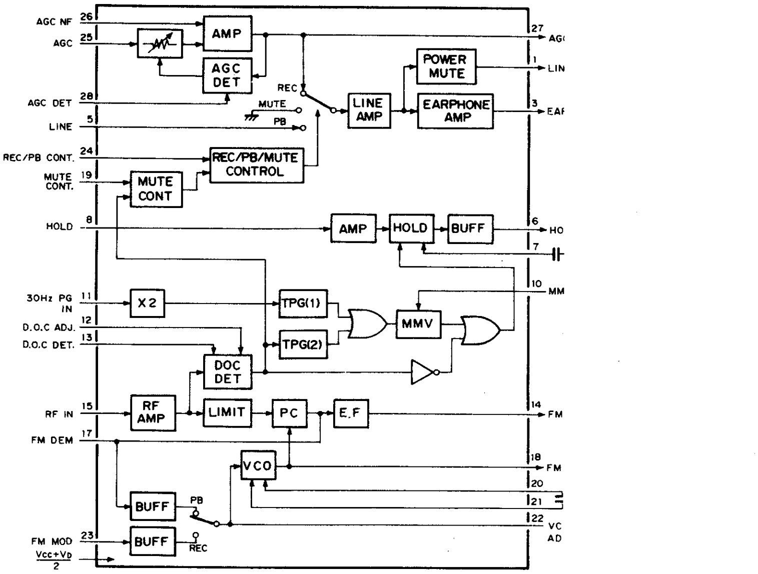
* A1 – A8 = A10 – A12 = 0

1 ; HIGH LEVEL
0 ; LOW LEVEL
X ; DON'T CARE
HI-Z ; HI-IMPEDANCE

AN6391NS (MATSUSHITA) FLAT PACKAGE

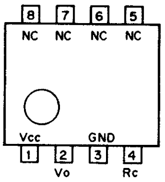
AUDIO FM REC/PB AMP
- TOP VIEW -

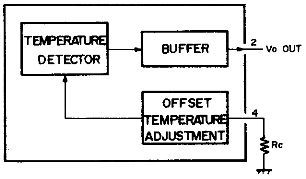

28 27 26 25 24 23 22 21 20 19 18 17 16 15
GND
GND
Vcc (+5V)
1 2 3 4 5 6 7 8 9 10 11 12 13 14


AGC NF 26
AGC 25
AGC DET 28
LINE 5
REC/PB CONT. 24
MUTE CONT. 19
HOLD 8
30Hz PG IN 11
D.O.C ADJ. 12
D.O.C DET. 13
RF IN 15
FM DEM 17
FM MOD 23
Vcc+VD / 2
AMP
AGC DET
REC
MUTE
PB
LINE AMP
POWER MUTE
EARPHONE AMP
REC/PB/MUTE CONTROL
MUTE CONT
AMP
HOLD
BUFF
X2
TPG(1)
TPG(2)
MMV
DOC DET
RF AMP
LIMIT
PC
E.F
VCO
BUFF
PB
BUFF
REC
27 AG
1 LIN
3 EA
6 HO
7
10 MM
14 FM
18 FM
20
21
22 VC AD

AN6701S (MATSUSHITA) FLAT PACKAGE

TEMPERATURE SENSING
- TOP VIEW -

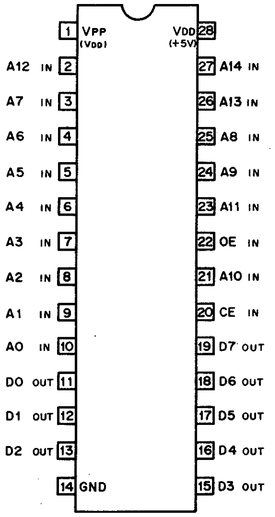

8 7 6 5
NC NC NC NC
Vcc GND
1 2 3 4
Vo Rc

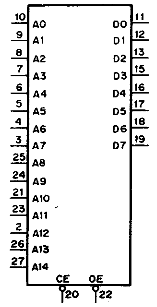

TEMPERATURE DETECTOR
BUFFER
OFFSET TEMPERATURE ADJUSTMENT
2 Vo OUT
4
Rc

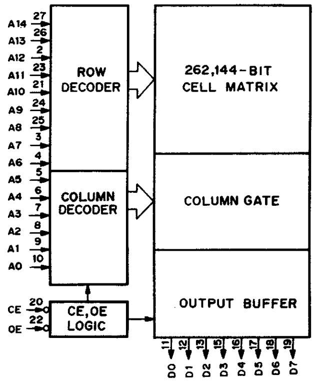
Rc : RESISTOR FOR CALIBRATION

AT27C256R-15RC (ATMEL)

C-MOS 256K (32K×8)-BIT UV ERASABLE PROM WITH 3-STATE OUTPUTS
- TOP VIEW -


1 VPP (VDD)
2 A12 IN
3 A7 IN
4 A6 IN
5 A5 IN
6 A4 IN
7 A3 IN
8 A2 IN
9 A1 IN
10 A0 IN
11 D0 OUT
12 D1 OUT
13 D2 OUT
14 GND
15 D3 OUT
16 D4 OUT
17 D5 OUT
18 D6 OUT
19 D7 OUT
20 CE IN
21 A10 IN
22 OE IN
23 A11 IN
24 A9 IN
25 A8 IN
26 A13 IN
27 A14 IN
28 VDD (+5V)


A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
A13
A14
D0
D1
D2
D3
D4
D5
D6
D7
CE
OE


ROW DECODER
262,144-BIT CELL MATRIX
COLUMN DECODER
COLUMN GATE
OUTPUT BUFFER
CE,OE LOGIC
CE
OE
A14
A13
A12
A11
A10
A9
A8
A7
A6
A5
A4
A3
A2
A1
A0
D0
D1
D2
D3
D4
D5
D6
D7

A0 – A14 : ADDRESS INPUTS
CE : CHIP ENABLE INPUT
D0 – D7 : DATA OUTPUTS
OE : OUTPUT ENABLE INPUT
V_{PP} : PROGRAM POWER SUPPLY

An	CE	OE	VDD	Vpp	Dn	FUNCTION
An	0	0	+5V	+5V	DOUT	READ
An	0	1	+5V	+5V	HI-Z	OUTPUT DISABLE
X	1	X	+5V	+5V	HI-Z	STANDBY
An	0	1	+6V	+12.5V	DIN	PGM
An	1	0	+6V	+12.5V	DOUT	PGM VERIFY(1)
An	0	0	+6V	+12.5V	DOUT	PGM VERIFY(2)
X	1	1	+6V	+12.5V	HI-Z	PGM INH
A0	0	0	+5V	+5V	DEVICE CODE	ELECTRONIC SIGNATURE*

*SEE FOLLOWING DESCRIPTION.

0: LOW LEVEL
1: HIGH LEVEL
X: DON'T CARE
HI-Z: HIGH IMPEDANCE

ELECTRONIC SIGNATURE FOR P ROM WRITER

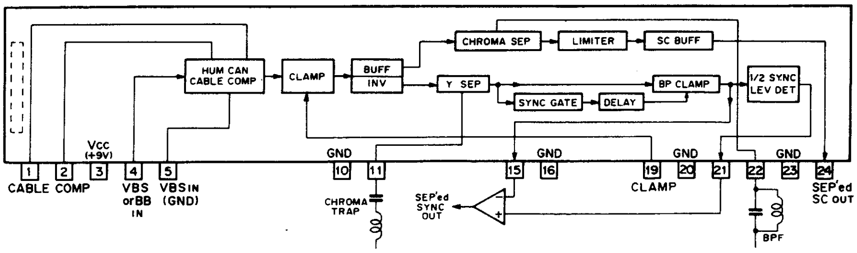
ADDRESS SETTINGS IN READ MODE

A1 – A8	A9	A10 – A13	A14, Vpp
0	12V	0	1

	A0	CODE DATA								
		D7	D6	D5	D4	D3	D2	D1	D0	
MAKER CODE	0	0	0	0	0	0	1	0	0	04H
DEVICE CODE	1	0	1	1	0	0	0	1	0	62H

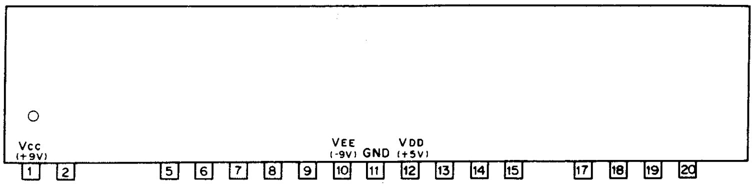
BX1040 (SONY)

SYNC SEPARATOR
- REAR VIEW -


HUM CAN CABLE COMP
CLAMP
BUFF
INV
CHROMA SEP
LIMITER
SC BUFF
Y SEP
SYNC GATE
DELAY
BP CLAMP
1/2 SYNC LEV DET
Vcc (+9V)
GND
GND
GND
GND
1 CABLE
2 COMP
3
4 VBS orBB IN
5 VBSIN (GND)
10
11
15
16
19 CLAMP
20
21
22
23
24 SEP'ed SC OUT
CHROMA TRAP
SEP'ed SYNC OUT
BPF

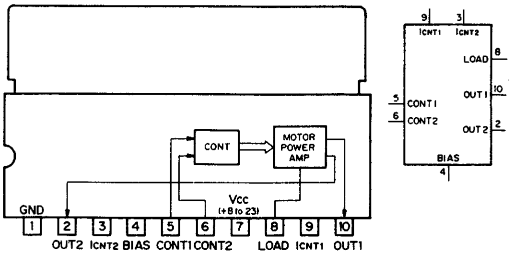
BX 1179A (SONY)

8-CHANNEL SELECTABLE SAMPLING HOLDER
- PRINTED SIDE -


Vcc (+9V)
VEE (-9V)
GND
VDD (+5V)
1
2
5
6
7
8
9
10
11
12
13
14
15
17
18
19
20

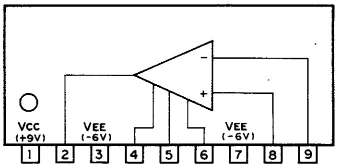
BA6229 (ROHM)

BI-DIRECTIONAL MOTOR DRIVER
- SIDE VIEW -


CONT
MOTOR POWER AMP
GND
Vcc (+8 to 23)
1
2 OUT2
3 ICNT2
4 BIAS
5 CONT1
6 CONT2
7
8 LOAD
9 ICNT1
10 OUT1
9 ICNT1
3 ICNT2
8 LOAD
10 OUT1
2 OUT2
5 CONT1
6 CONT2
BIAS 4

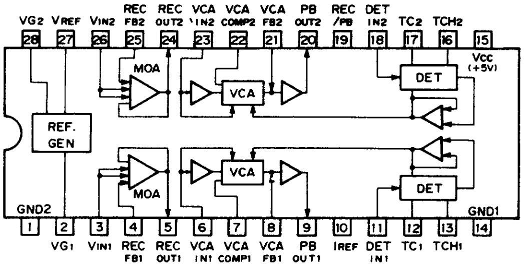
BX1356 (SONY)

VIDEO OUTPUT AMPLIFIER
- PRINTED SIDE -


Vcc (+9V)
VEE (-6V)
VEE (-6V)
1
2
3
4
5
6
7
8
9

CX20099 (SONY) FLAT PACKAGE

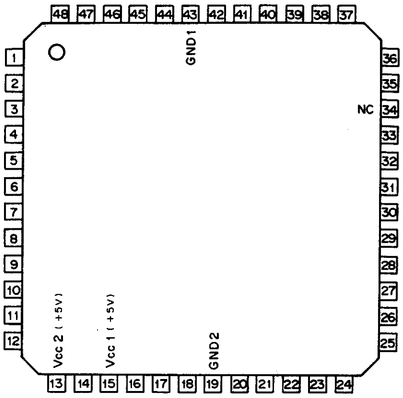
VOLTAGE CONTROLLED AMP/DETECTOR/MAIN OPERATIONAL AMP
- TOP VIEW -

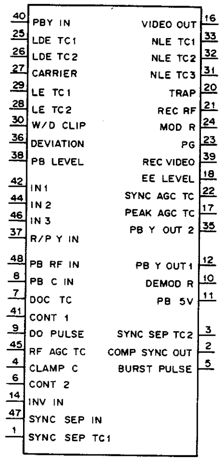

28 VG2
27 VREF
26 VIN2
25 REC FB2
24 REC OUT2
23 VCA IN2
22 VCA COMP2
21 VCA FB2
20 PB OUT2
19 REC /PB
18 DET IN2
17 TC2
16 TCH2
15
Vcc (+5V)
REF. GEN
MOA
VCA
DET
MOA
VCA
DET
GND2
GND1
1
2 VG1
3 VIN1
4 REC FB1
5 REC OUT1
6 VCA IN1
7 VCA COMP1
8 VCA FB1
9 PB OUT1
10 IREF
11 DET IN1
12 TC1
13 TCH1
14

DET ; DETECTOR
TC ; TIME CONSTANT
TCH ; TIME CONSTANT HOLD
VCA ; VOLTAGE CONTROLLED AMP

CX20030 (SONY) FLAT PACKAGE
CXA1230AR (SONY) FLAT PACKAGE

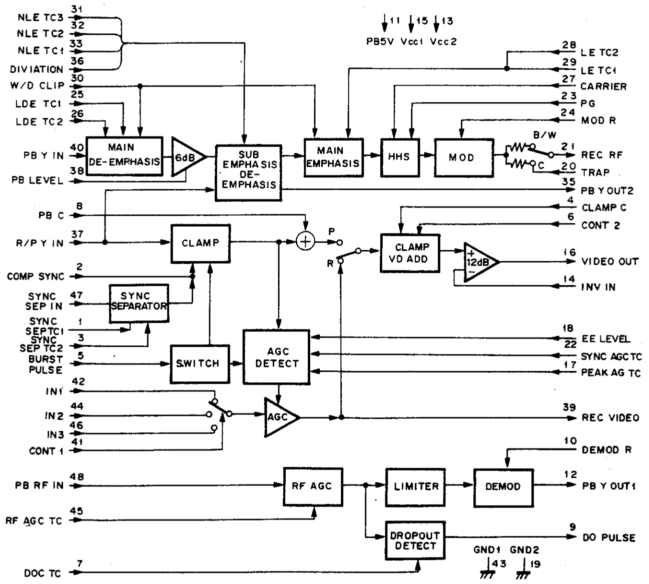
VIDEO Y SIGNAL PROCESSOR
- TOP VIEW -


48 47 46 45 44 43 42 41 40 39 38 37
GND1
NC
Vcc 2 (+5V)
Vcc 1 (+5V)
GND2
1 2 3 4 5 6 7 8 9 10 11 12
13 14 15 16 17 18 19 20 21 22 23 24
36 35 34 33 32 31 30 29 28 27 26 25


40 PBY IN
25 LDE TC1
26 LDE TC2
27 CARRIER
29 LE TC1
28 LE TC2
30 W/D CLIP
36 DEVIATION
38 PB LEVEL
42 IN1
44 IN2
46 IN3
37 R/P Y IN
48 PB RF IN
8 PB C IN
7 DOC TC
41 CONT 1
9 DO PULSE
45 RF AGC TC
4 CLAMP C
6 CONT 2
14 INV IN
47 SYNC SEP IN
1 SYNC SEP TC1
VIDEO OUT 16
NLE TC1 33
NLE TC2 32
NLE TC3 31
TRAP 20
REC RF 21
MOD R 24
PG 23
REC VIDEO 39
EE LEVEL 18
SYNC AGC TC 22
PEAK AGC TC 17
PB Y OUT 2 35
PB Y OUT1 12
DEMOD R 10
PB 5V 11
SYNC SEP TC2 3
COMP SYNC OUT 2
BURST PULSE 5

($V_{DD} = +5V$)

PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL
1	I	SYNC SEP TC1	17	I	PEAK AGC TC	33	I	NLE TC1
2	O	COMP SYNC	18	I	EE LEVEL	34	–	NC
3	I	SYNC SEP TC2	19	–	GND2	35	O	PB Y OUT2
4	I	CLAMP C	20	I	TRAP	36	I	DEVIATION
5	I	BURST PULSE	21	O	REC RF	37	I	R/P Y IN
6	I	CONT2	22	I	SYNC AGC TC	38	I	PB LEVEL
7	I	DOC TC	23	I	PG	39	O	REC VIDEO
8	I	PB C	24	I	MOD R	40	I	PB Y IN
9	O	DO PULSE	25	I	LDE TC1	41	I	CONT1
10	I	DEMOD R	26	I	LDE TC2	42	I	IN1
11	I	PB 5V	27	I	CARRIER	43	–	GND1
12	O	PB Y OUT1	28	I	LE TC2	44	I	IN2
13	–	Vcc2	29	I	LE TC1	45	I	RF AGC TC
14	I	INV IN	30	I	W/D CLIP	46	I	IN3
15	–	Vcc1	31	I	NLE TC3	47	I	SYNC SEP IN
16	O	VIDEO OUT	32	I	NLE TC2	48	I	PB RF IN


NLE TC3 31
NLE TC2 32
NLE TC1 33
DIVIATION 36
W/D CLIP 30
LDE TC1 25
LDE TC2 26
PB Y IN 40
PB LEVEL 38
PB C 8
R/P Y IN 37
COMP SYNC 2
SYNC SEP IN 47
SYNC SEPTC1 1
SYNC SEP TC2 3
BURST PULSE 5
IN1 42
IN2 44
IN3 46
CONT 1 41
PB RF IN 48
RF AGC TC 45
DOC TC 7
11 15 13
PB5V Vcc1 Vcc2
MAIN DE-EMPHASIS
6dB
SUB EMPHASIS DE-EMPHASIS
MAIN EMPHASIS
HHS
MOD
B/W
C
CLAMP
P
R
CLAMP VD ADD
12dB
SYNC SEPARATOR
SWITCH
AGC DETECT
AGC
RF AGC
LIMITER
DEMOD
DROPOUT DETECT
GND1 GND2
43 19
28 LE TC2
29 LE TC1
27 CARRIER
23 PG
24 MOD R
21 REC RF
20 TRAP
35 PB Y OUT2
4 CLAMP C
6 CONT 2
16 VIDEO OUT
14 INV IN
18 EE LEVEL
22 SYNC AGC TC
17 PEAK AG TC
39 REC VIDEO
10 DEMOD R
12 PB Y OUT1
9 DO PULSE

INPUT

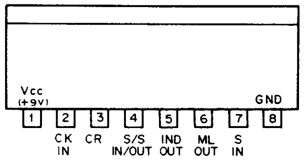
BURST PULSE	: BURST PULSE INPUT
CARRIER	: FM MODULATOR CARRIER CONTROL INPUT
CLAMP C	: EXTERNAL CAPACITOR FOR CLAMPING INPUT
CONT 1	: INTERNAL SWITCH CONTROL INPUT
CONT 2	: MUTING AND VD-ADD CONTROL INPUT
DEMOD R	: EXTERNAL RESISTOR FOR FM DEMODULATOR INPUT
DEVIATION	: DEVIATION CONTROL INPUT
DOC TC	: EXTERNAL CAPACITOR FOR DROPOUT DETECTION INPUT
EE LEVEL	: SYNC AGC CONTROL INPUT
IN 1 – IN 3	: RECORDING VIDEO SIGNAL INPUTS
INV IN	: INVERTING INPUT FOR VIDEO CIRCUIT
LDE TC1,TC2	: EXTERNAL RESISTOR FOR LINEAR DE-EMPHASIS INPUTS
LE TC1,TC2	: EXTERNAL CR FOR LINEAR EMPHASIS INPUTS
MOD R	: EXTERNAL RESISTOR FOR FM MODULATOR INPUT
NLE TC1 – NLE TC3	: EXTERNAL CAPACITOR FOR NON-LINEAR EMPHASIS INPUTS
PB 5V	: POWER FOR PLAYBACK SYSTEM INPUT
PB C	: PB CHROMA INPUT AND M/C CONTROL INPUT
PB LEVEL	: PB Y OUT2 SIGNAL CONTROL INPUT
PB RF IN	: PB RF (FM) INPUT
PB Y IN	: PB Y SIGNAL FOR DE-EMPHASIS INPUT
PEAK AGC TC	: EXTERNAL CR INPUT FOR PEAK AGC
PG	: PG (30Hz) SIGNAL INPUT
RF AGC TC	: EXTERNAL CR FOR RF AGC INPUT
R/P Y IN	: Y SIGNAL FOR CLAMPING INPUT
SYNC AGC TC	: EXTERNAL CR INPUT FOR SYNC AGC
SYNC SEP IN	: SYNC SEPARATION SIGNAL INPUT
SYNC SEP TC1,TC2	: EXTERNAL CR INPUT FOR SYNC SEPARATION
TRAP	: TRAP INPUT
W/D CLIP	: LINEAR EMPHASIS AND W/D CLIP CONTROL INPUT

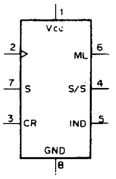
OUTPUT

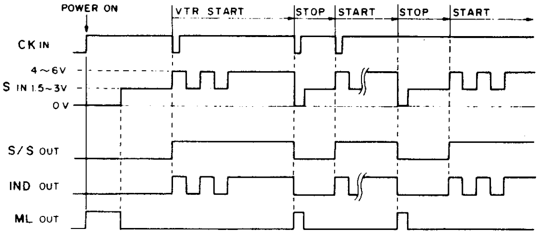
COMP SYNC	: COMPOSITE SYNC OUTPUT
DO PULSE	: DROPOUT PULSE OUTPUT
PB Y OUT1	: FREQUENCY DEMODULATOR OUTPUT
PB Y OUT2	: PB Y OUTPUT
REC RF	: Y-FM SIGNAL OUTPUT
REC VIDEO	: AMPLIFIED Y SIGNAL OUTPUT
VIDEO OUT	: VIDEO OUTPUT

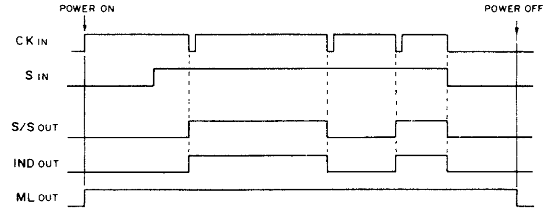
CX518 (SONY)

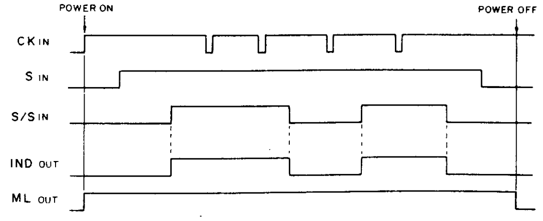
INTERFACE CIRCUIT BETWEEN VTR AND CAMERA
- SIDE VIEW -


Vcc (+9V)
GND
1 2 3 4 5 6 7 8
CK IN
CR
S/S IN/OUT
IND OUT
ML OUT
S IN


1
Vcc
2
ML 6
7 S
S/S 4
3 CR
IND 5
GND
8



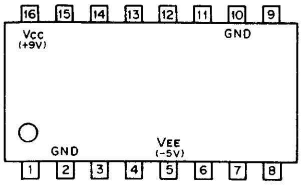


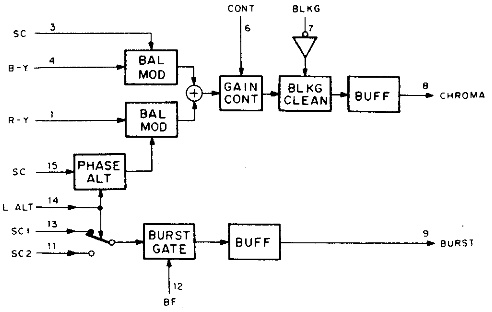


CX22017 (SONY)

VIDEO SIGNAL PROCESSOR

- TOP VIEW -

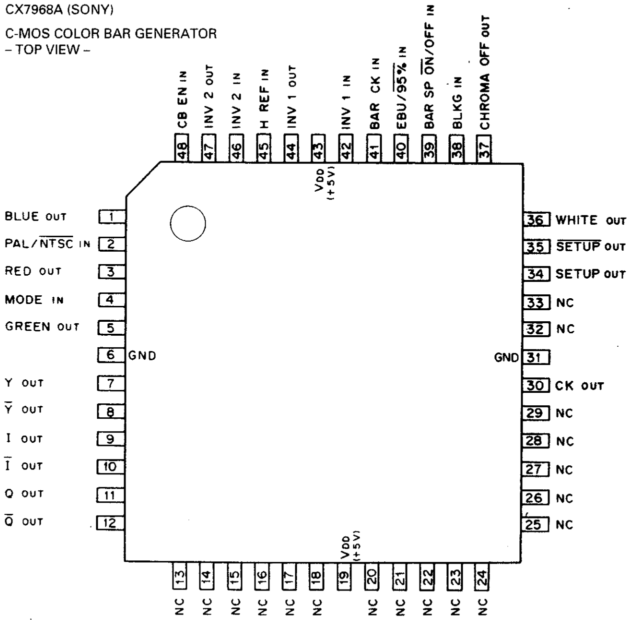

16
15
14
13
12
11
10
9
Vcc (+9V)
GND
GND
VEE (-5V)
1
2
3
4
5
6
7
8


SC 3
B-Y 4
BAL MOD
R-Y 1
BAL MOD
CONT 6
BLKG 7
GAIN CONT
BLKG CLEAN
BUFF
8 CHROMA
SC 15
PHASE ALT
L ALT 14
SC1 13
SC2 11
BURST GATE
BUFF
9 BURST
12 BF

CX7968A (SONY)

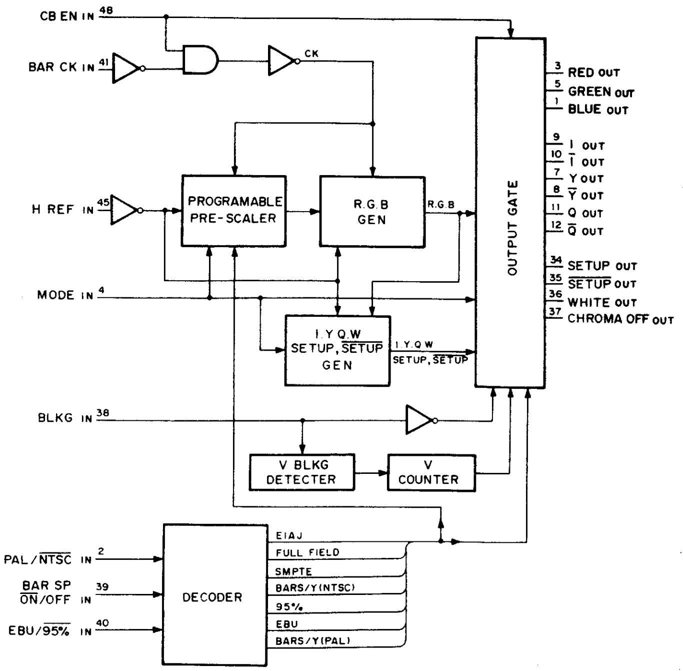
C-MOS COLOR BAR GENERATOR

- TOP VIEW -


48 CB EN IN
47 INV 2 OUT
46 INV 2 IN
45 H REF IN
44 INV 1 OUT
43 VDD (+5V)
42 INV 1 IN
41 BAR CK IN
40 EBU/95% IN
39 BAR SP ON/OFF IN
38 BLKG IN
37 CHROMA OFF OUT
BLUE OUT 1
PAL/NTSC IN 2
RED OUT 3
MODE IN 4
GREEN OUT 5
6 GND
Y OUT 7
Y̅ OUT 8
I OUT 9
I̅ OUT 10
Q OUT 11
Q̅ OUT 12
36 WHITE OUT
35 SETUP̅ OUT
34 SETUP OUT
33 NC
32 NC
GND 31
30 CK OUT
29 NC
28 NC
27 NC
26 NC
25 NC
13 NC
14 NC
15 NC
16 NC
17 NC
18 NC
19 VDD (+5V)
20 NC
21 NC
22 NC
23 NC
24 NC

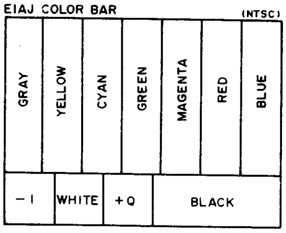
INPUT				FUNCTION
PAL/$\overline{\text{NTSC}}$	MODE	EBU/$\overline{95\%}$	BAR SP	
0	0	0	0	EIAJ COLOR BAR
0	0	0	1	FULL FIELD COLOR BAR
0	0	1	0	INHIBIT
0	0	1	1	INHIBIT
0	1	0	0	EIAJ COLOR BAR
0	1	0	1	FULL FIELD COLOR BAR
0	1	1	0	SMPTE COLOR BAR
0	1	1	1	COLOR BAR + Y BAR
1	0	0	0	95% COLOR BAR
1	0	0	1	INHIBIT
1	0	1	0	EBU COLOR BAR
1	0	1	1	INHIBIT
1	1	0	0	95% COLOR BAR
1	1	0	1	COLOR BAR + Y BAR
1	1	1	0	EBU COLOR BAR
1	1	1	1	INHIBIT

0 ; LOW LEVEL
1 ; HIGH LEVEL

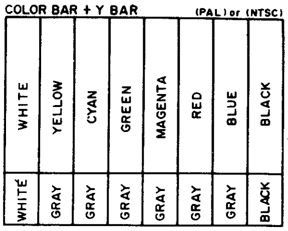

CB EN IN 48
BAR CK IN 41
CK
H REF IN 45
PROGRAMABLE PRE-SCALER
R.G.B GEN
R.G.B
MODE IN 4
I.Y.Q.W SETUP, SETUP̅ GEN
I.Y.Q.W SETUP, SETUP̅
OUTPUT GATE
3 RED OUT
5 GREEN OUT
1 BLUE OUT
9 I OUT
10 I̅ OUT
7 Y OUT
8 Y̅ OUT
11 Q OUT
12 Q̅ OUT
34 SETUP OUT
35 SETUP̅ OUT
36 WHITE OUT
37 CHROMA OFF OUT
BLKG IN 38
V BLKG DETECTER
V COUNTER
PAL/NTSC̅ IN 2
BAR SP ON̅/OFF IN 39
EBU/95̅%̅ IN 40
DECODER
EIAJ
FULL FIELD
SMPTE
BARS/Y(NTSC)
95%
EBU
BARS/Y(PAL)

O COLOR BAR PATTERN

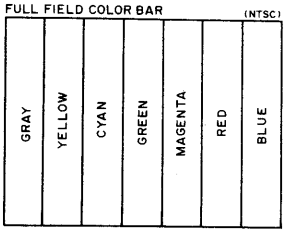
EIAJ COLOR BAR (NTSC)


GRAY
YELLOW
CYAN
GREEN
MAGENTA
RED
BLUE
- I
WHITE
+Q
BLACK

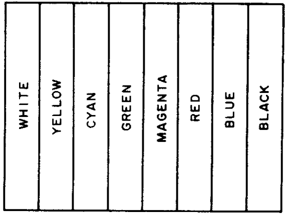
COLOR BAR + Y BAR (PAL) or (NTSC)


WHITE
YELLOW
CYAN
GREEN
MAGENTA
RED
BLUE
BLACK
WHITE
GRAY
GRAY
GRAY
GRAY
GRAY
GRAY
BLACK

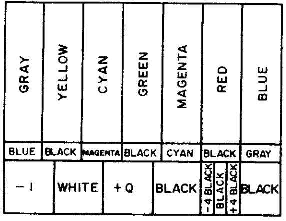
FULL FIELD COLOR BAR (NTSC)


GRAY
YELLOW
CYAN
GREEN
MAGENTA
RED
BLUE

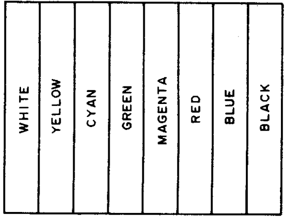
95% COLOR BAR (PAL)


WHITE
YELLOW
CYAN
GREEN
MAGENTA
RED
BLUE
BLACK

SMPTE COLOR BAR (NTSC)


GRAY
YELLOW
CYAN
GREEN
MAGENTA
RED
BLUE
BLUE
BLACK
MAGENTA
BLACK
CYAN
BLACK
GRAY
- I
WHITE
+Q
BLACK
-4 BLACK
BLACK
+4 BLACK
BLACK

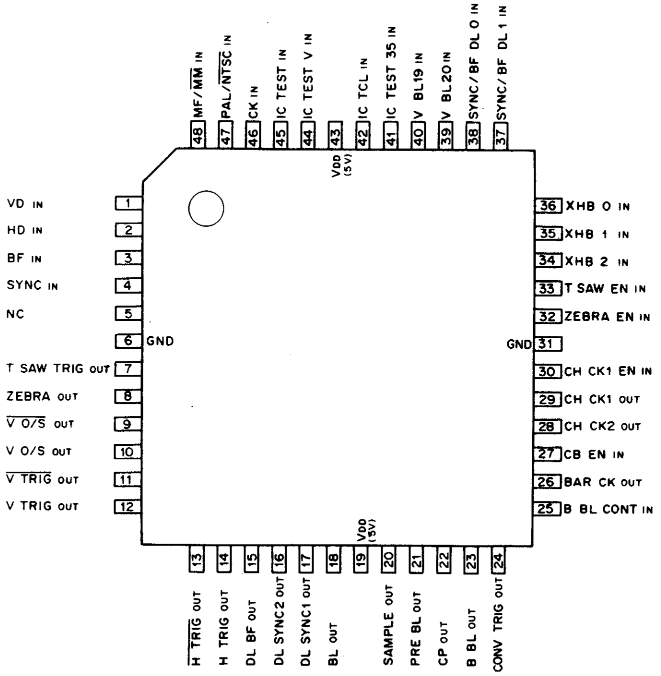
EBU COLOR BAR (PAL)


WHITE
YELLOW
CYAN
GREEN
MAGENTA
RED
BLUE
BLACK

CX7969 (SONY)

C-MOS PULSE GENERATOR

- TOP VIEW -


48 MF/$\overline{\text{MM}}$ IN
47 PAL/$\overline{\text{NTSC}}$ IN
46 CK IN
45 IC TEST IN
44 IC TEST V IN
43 VDD (5V)
42 IC TCL IN
41 IC TEST 35 IN
40 V BL19 IN
39 V BL20 IN
38 SYNC/BF DL 0 IN
37 SYNC/BF DL 1 IN
1 VD IN
2 HD IN
3 BF IN
4 SYNC IN
5 NC
6 GND
7 T SAW TRIG OUT
8 ZEBRA OUT
9 $\overline{\text{V O/S}}$ OUT
10 V O/S OUT
11 $\overline{\text{V TRIG}}$ OUT
12 V TRIG OUT
36 XHB 0 IN
35 XHB 1 IN
34 XHB 2 IN
33 T SAW EN IN
32 ZEBRA EN IN
31 GND
30 CH CK1 EN IN
29 CH CK1 OUT
28 CH CK2 OUT
27 CB EN IN
26 BAR CK OUT
25 B BL CONT IN
13 $\overline{\text{H TRIG}}$ OUT
14 H TRIG OUT
15 DL BF OUT
16 DL SYNC2 OUT
17 DL SYNC1 OUT
18 BL OUT
19 VDD (5V)
20 SAMPLE OUT
21 PRE BL OUT
22 CP OUT
23 B BL OUT
24 CONV TRIG OUT

1. SYSTEM DESIGNATION

INPUT PAL/$\overline{\text{NTSC}}$ IN	SYSTEM
1	PAL, SECAM
0	NTSC, PALM

2. TYPE OF TUBE

INPUT MF/$\overline{\text{MM}}$ IN	FUNCTION
1	MAG-STA TUBE
0	MAG-MAG TUBE

3. V BLKG WIDTH (NTSC ONLY)

INPUT		V BLKG WIDTH
V BL 19	V BL 20	
1	X	19H
0	1	20H
0	0	21H

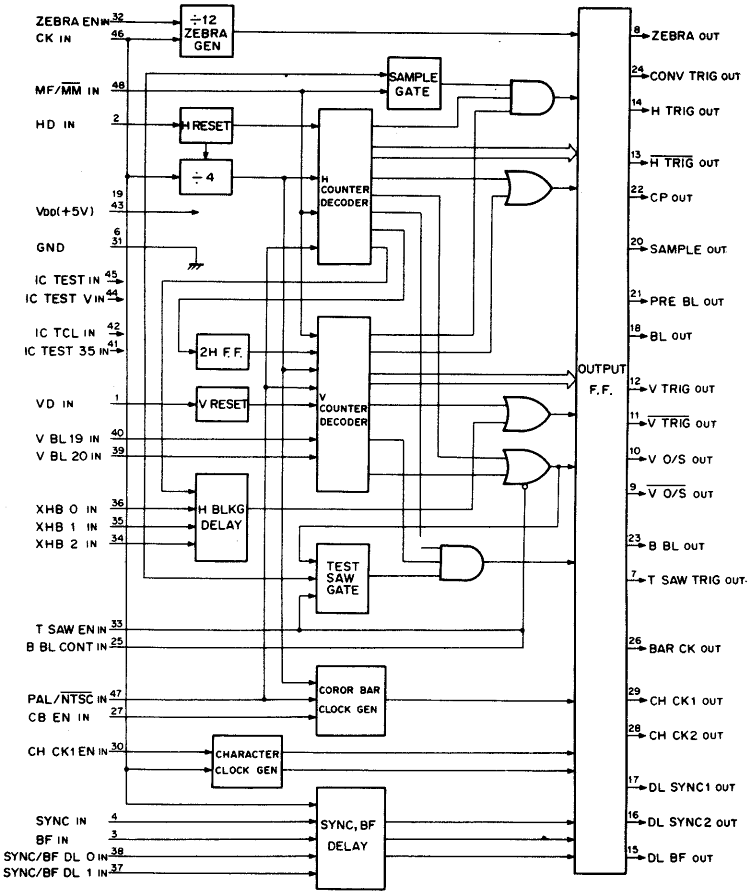
4. H BLKG WIDTH

INPUT			BLKG WIDTH (µS)	
XHB2	XHB1	XHB0	NTSC	PAL
1	1	1	10.27	11.49
1	1	0	10.34	11.56
1	0	1	10.41	11.63
1	0	0	10.48	11.70
0	1	1	10.55	11.77
0	1	0	10.62	11.84
0	0	1	10.69	11.91
0	0	0	10.76	11.98

5. DELAY TIME

INPUT		DELAY TIME (nS)		
SYNC/BF DL1	SYNC/BF DL2	DL SYNC 1	DL SYNC 2	DL BF
1	1	140	210	140
1	0	210	280	210
0	1	630	700	630
0	0	700	770	700

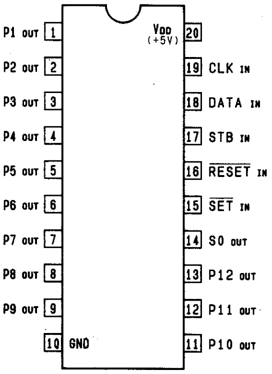
1; HIGH LEVEL
0; LOW LEVEL
X; DON'T CARE

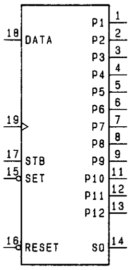

ZEBRA EN IN 32
CK IN 46
÷12 ZEBRA GEN
MF/$\overline{\text{MM}}$ IN 48
SAMPLE GATE
HD IN 2
H RESET
÷4
H COUNTER DECODER
VDD(+5V) 19 43
GND 6 31
IC TEST IN 45
IC TEST V IN 44
IC TCL IN 42
IC TEST 35 IN 41
2H F.F.
VD IN 1
V RESET
V COUNTER DECODER
V BL19 IN 40
V BL 20 IN 39
XHB 0 IN 36
XHB 1 IN 35
XHB 2 IN 34
H BLKG DELAY
TEST SAW GATE
T SAW EN IN 33
B BL CONT IN 25
PAL/$\overline{\text{NTSC}}$ IN 47
CB EN IN 27
COROR BAR CLOCK GEN
CH CK1 EN IN 30
CHARACTER CLOCK GEN
SYNC IN 4
BF IN 3
SYNC/BF DL 0 IN 38
SYNC/BF DL 1 IN 37
SYNC, BF DELAY
OUTPUT F.F.
8 ZEBRA OUT
24 CONV TRIG OUT
14 H TRIG OUT
13 $\overline{\text{H TRIG}}$ OUT
22 CP OUT
20 SAMPLE OUT
21 PRE BL OUT
18 BL OUT
12 V TRIG OUT
11 $\overline{\text{V TRIG}}$ OUT
10 V O/S OUT
9 $\overline{\text{V O/S}}$ OUT
23 B BL OUT
7 T SAW TRIG OUT
26 BAR CK OUT
29 CH CK1 OUT
28 CH CK2 OUT
17 DL SYNC1 OUT
16 DL SYNC2 OUT
15 DL BF OUT

CX7991 (SONY)

C-MOS 12-BIT SERIAL TO PARALLEL CONVERTER

- TOP VIEW -

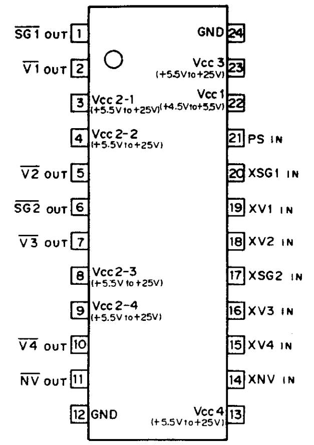

P1 OUT 1
P2 OUT 2
P3 OUT 3
P4 OUT 4
P5 OUT 5
P6 OUT 6
P7 OUT 7
P8 OUT 8
P9 OUT 9
10 GND
20 VDD (+5V)
19 CLK IN
18 DATA IN
17 STB IN
16 $\overline{\text{RESET}}$ IN
15 $\overline{\text{SET}}$ IN
14 SO OUT
13 P12 OUT
12 P11 OUT
11 P10 OUT


18 DATA
19
17 STB
15 SET
16 RESET
P1 1
P2 2
P3 3
P4 4
P5 5
P6 6
P7 7
P8 8
P9 9
P10 11
P11 12
P12 13
SO 14

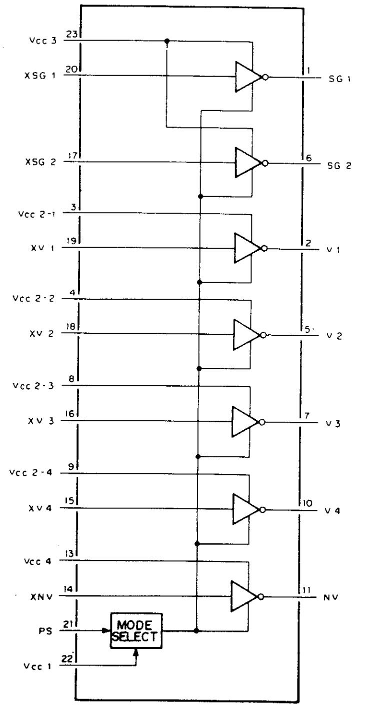
CLK :CLOCK
DATA :SERIAL DATA INPUT
P1-P12:PARALLEL DATA
RESET :RESET SIGNAL
SET :SET SIGNAL
SO :SERIAL DATA OUTPUT
STB :STROBE SIGNAL

CXA1065M (SONY) FLAT PACKAGE

INVERTING DRIVER FOR CCD CLOCK WITH POWER SAVE
- TOP VIEW -

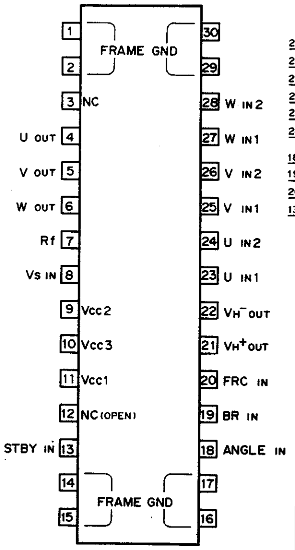

$\overline{SG1}$ OUT 1
$\overline{V1}$ OUT 2
3 Vcc 2-1 (+5.5V to +25V)
4 Vcc 2-2 (+5.5V to +25V)
$\overline{V2}$ OUT 5
$\overline{SG2}$ OUT 6
$\overline{V3}$ OUT 7
8 Vcc 2-3 (+5.5V to +25V)
9 Vcc 2-4 (+5.5V to +25V)
$\overline{V4}$ OUT 10
$\overline{NV}$ OUT 11
12 GND
GND 24
Vcc 3 (+5.5V to +25V) 23
Vcc 1 (+4.5V to +5.5V) 22
21 PS IN
20 XSG1 IN
19 XV1 IN
18 XV2 IN
17 XSG2 IN
16 XV3 IN
15 XV4 IN
14 XNV IN
Vcc 4 (+5.5V to +25V) 13

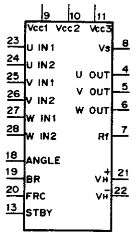
XV1-XV4 ; VERTICAL REGISTER TRANSMISSION CLOCK INPUT
$\overline{V1}$ - $\overline{V4}$; VERTICAL REGISTER TRANSMISSION CLOCK OUTPUT
XSG1, XSG2 ; SENSER GATE PULSE INPUT
$\overline{SG1}$, $\overline{SG2}$; SENSER GATE PULSE OUTPUT
XNV ; DRIVER INPUT
$\overline{NV}$; DRIVER OUTPUT
PS : POWER SAVE INPUT
Vcc 1 ; BIAS VOLTAGE
Vcc 2-1 ; $\overline{V1}$ OUTPUT PULSE VOLTAGE
Vcc 2-2 ; $\overline{V2}$ OUTPUT PULSE VOLTAGE
Vcc 2-3 ; $\overline{V3}$ OUTPUT PULSE VOLTAGE
Vcc 2-4 ; $\overline{V4}$ OUTPUT PULSE VOLTAGE
Vcc 3 ; $\overline{SG1}$, $\overline{SG2}$ OUTPUT PULSE VOLTAGE
Vcc 4 ; $\overline{NV}$ OUTPUT PULSE VOLTAGE


Vcc 3 23
XSG 1 20
1 SG 1
XSG 2 17
6 SG 2
Vcc 2-1 3
XV 1 19
2 V 1
Vcc 2-2 4
XV 2 18
5 V 2
Vcc 2-3 8
XV 3 16
7 V 3
Vcc 2-4 9
XV 4 15
10 V 4
Vcc 4 13
XNV 14
11 NV
PS 21
Vcc 1 22
MODE SELECT

CXA1127M (SONY) FLAT PACKAGE

CAPSTAN MOTOR DRIVER
- TOP VIEW -


FRAME GND
1
2
3 NC
U OUT 4
V OUT 5
W OUT 6
Rf 7
Vs IN 8
9 Vcc2
10 Vcc3
11 Vcc1
12 NC (OPEN)
STBY IN 13
14
15
30
29
28 W IN2
27 W IN1
26 V IN2
25 V IN1
24 U IN2
23 U IN1
22 VH⁻ OUT
21 VH⁺ OUT
20 FRC IN
19 BR IN
18 ANGLE IN
17
16
FRAME GND


9 Vcc1
10 Vcc2
11 Vcc3
23 U IN1
24 U IN2
25 V IN1
26 V IN2
27 W IN1
28 W IN2
18 ANGLE
19 BR
20 FRC
13 STBY
Vs 8
U OUT 4
V OUT 5
W OUT 6
Rf 7
VH⁺ 21
VH⁻ 22

INPUT
BR : MOTOR BRAKE (H : STOP, L : PLAY)
FRC : FWD/REV CONTROL (H : FWD, L : REV)
STBY : STAND-BY (GND : POWER OFF)
U IN1, 2 : U PHASE INPUTS
V IN1, 2 : V PHASE INPUTS
Vs : MOTOR INPUT VOLTAGE (Vs < Vcc2)
W IN1, 2 : W PHASE INPUTS

OUTPUT
U OUT : U PHASE OUTPUT
V OUT : V PHASE OUTPUT
VH⁺, VH⁻ : HALL BIAS CURRENT
W OUT : W PHASE OUTPUT

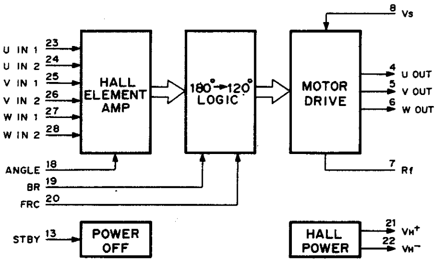
OTHERS
Rf : GND FOR OUTPUT TRANSISTOR
Rs : GND FOR OUTPUT DRIVER

NOTE :

Vcc1	+4 to +7V	OPEN
Vcc2	+4 to +12V	+6 to +12V
Vcc3	short to Vcc1	short to Vcc2
Vs	Vs<Vcc2	Vs<Vcc2

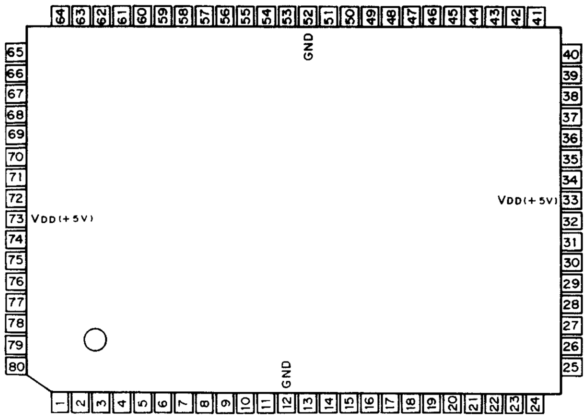
INPUT			FRC	FUNCTION
U	V	W		
H	H	L	0	W→V PHASE
			1	V→W PHASE
H	L	L	0	W→U PHASE
			1	U→W PHASE
L	L	H	0	V→W PHASE
			1	W→V PHASE
L	H	L	0	U→V PHASE
			1	V→U PHASE
H	L	H	0	V→U PHASE
			1	U→V PHASE
L	H	H	0	U→W PHASE
			1	W→U PHASE

H : HIGH LEVEL
L : LOW LEVEL
1 ; 2.0 to Vcc2
0 : 0 to 0.3V

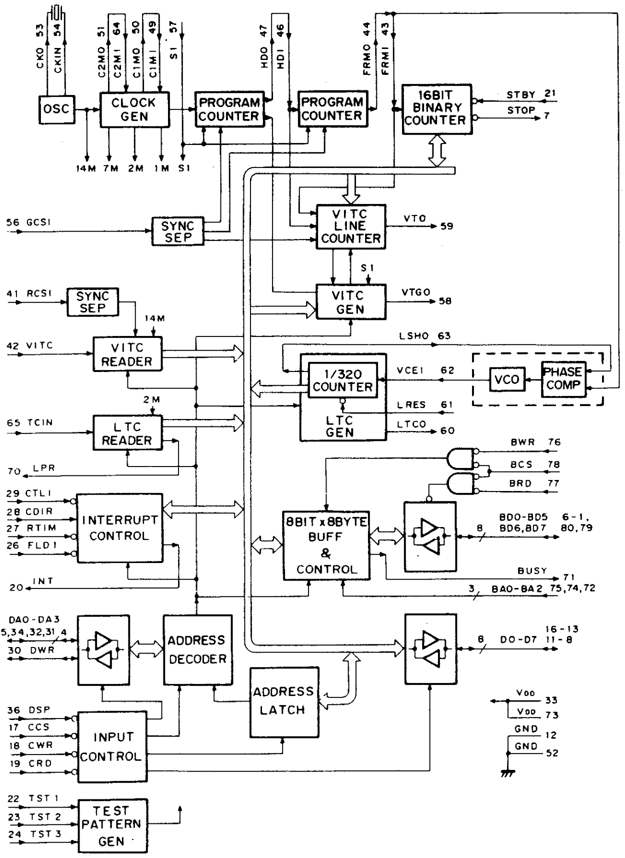

U IN 1 23
U IN 2 24
V IN 1 25
V IN 2 26
W IN 1 27
W IN 2 28
HALL ELEMENT AMP
180°→120° LOGIC
MOTOR DRIVE
8 Vs
4 U OUT
5 V OUT
6 W OUT
7 Rf
ANGLE 18
BR 19
FRC 20
STBY 13
POWER OFF
HALL POWER
21 VH⁺
22 VH⁻

CXD1132Q (SONY) FLAT PACKAGE

C-MOS TIME CODE GENERATOR/READER
– TOP VIEW –


64 63 62 61 60 59 58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41
GND
65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80
VDD (+5V)
40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25
VDD (+5V)
GND
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL
1	I/O	DB5	17	I	CCS	33	–	VDD	49	I	C1MI	65	I	TCIN
2	I/O	DB4	18	I	CWR	34	I/O	DA1	50	O	C1MO	66	O	DCLK
3	I/O	DB3	19	I	CRD	35	I/O	DA0	51	O	C2MO	67	O	DATA
4	I/O	DB2	20	O	INT	36	I	DSP	52	–	GND	68	O	RFLD
5	I/O	DB1	21	I	STBY	37	O	DTSE	53	O	CKO	69	O	RDSY
6	I/O	DB0	22	I	TST1	38	O	VRCK	54	I	CKIN	70	O	LRP
7	O	STOP	23	I	TST2	39	I	SLLM	55	I	SLCK	71	O	BUSY
8	I/O	D7	24	I	TST3	40	O	RVDO	56	I	GCSI	72	I	BA2
9	I/O	D6	25	I	PON	41	I	RCSI	57	I	S1	73	–	VDD
10	I/O	D5	26	I	FLD1	42	I	VITC	58	O	VTGO	74	I	BA1
11	I/O	D4	27	I	RTIM	43	I	FRMI	59	O	VTO	75	I	BA0
12	–	GND	28	I	CDIR	44	O	FRMO	60	O	LTCO	76	I	BWR
13	I/O	D3	29	I	CTLI	45	O	GLSY	61	I	LRES	77	I	BRD
14	I/O	D2	30	I/O	DWR	46	I	HDI	62	I	VCEI	78	I	BCS
15	I/O	D1	31	I/O	DA3	47	O	HDO	63	O	LSHO	79	I/O	BD7
16	I/O	D0	32	I/O	DA2	48	O	VDO	64	I	C2MI	80	I/O	BD6


CKO 53
CKIN 54
C2MO 51
C2MI 64
C1MO 50
C1MI 49
S1 57
HDO 47
HDI 46
FRMO 44
FRMI 43
OSC
CLOCK GEN
PROGRAM COUNTER
PROGRAM COUNTER
16BIT BINARY COUNTER
STBY 21
STOP 7
14M 7M 2M 1M S1
56 GCSI
SYNC SEP
VITC LINE COUNTER
VTO 59
S1
41 RCSI
SYNC SEP
VITC GEN
VTGO 58
14M
42 VITC
VITC READER
LSHO 63
1/320 COUNTER
VCEI 62
VCO
PHASE COMP
LRES 61
LTC GEN
LTCO 60
2M
65 TCIN
LTC READER
70 LPR
BWR 76
BCS 78
BRD 77
29 CTLI
28 CDIR
27 RTIM
26 FLD1
INTERRUPT CONTROL
8BIT x 8BYTE BUFF & CONTROL
8
BD0-BD5 6-1,
BD6,BD7 80,79
20 INT
BUSY 71
3
BA0-BA2 75,74,72
DA0-DA3
35,34,32,31 4
30 DWR
ADDRESS DECODER
8
D0-D7 16-13 11-8
ADDRESS LATCH
VDD 33
VDD 73
GND 12
GND 52
36 DSP
17 CCS
18 CWR
19 CRD
INPUT CONTROL
22 TST1
23 TST2
24 TST3
TEST PATTERN GEN

SIGNAL DESCRIPTION

BA0-BA2	B ADDRESS INPUTS
BCS	B CHIP ENABLE INPUT ("L":ENABLE)
BD0-BD7	B DATA I/O
BRD	B READ INPUT ("L":READ)
BUSY	B BUSY OUTPUT
BWR	B WRITE INPUT ("L":WRITE)
C1MI	SYSTEM CLOCK INPUT
C1MO	CLOCK 1 OUTPUT (CKIN X 1/16)
C2MI	LTC READ CLOCK INPUT
C2MO	CLOCK 2 OUTPUT (CKIN X 1/8)
CCS	C CHIP ENABLE INPUT ("L":ENABLE)(when DSP is low) ADDRESS LATCH ENABLE INPUT ("L":ENABLE)(when DSP is high)
CDIR	CTL DIRECTION INPUT
CKIN	SYSTEM CLOCK INPUT

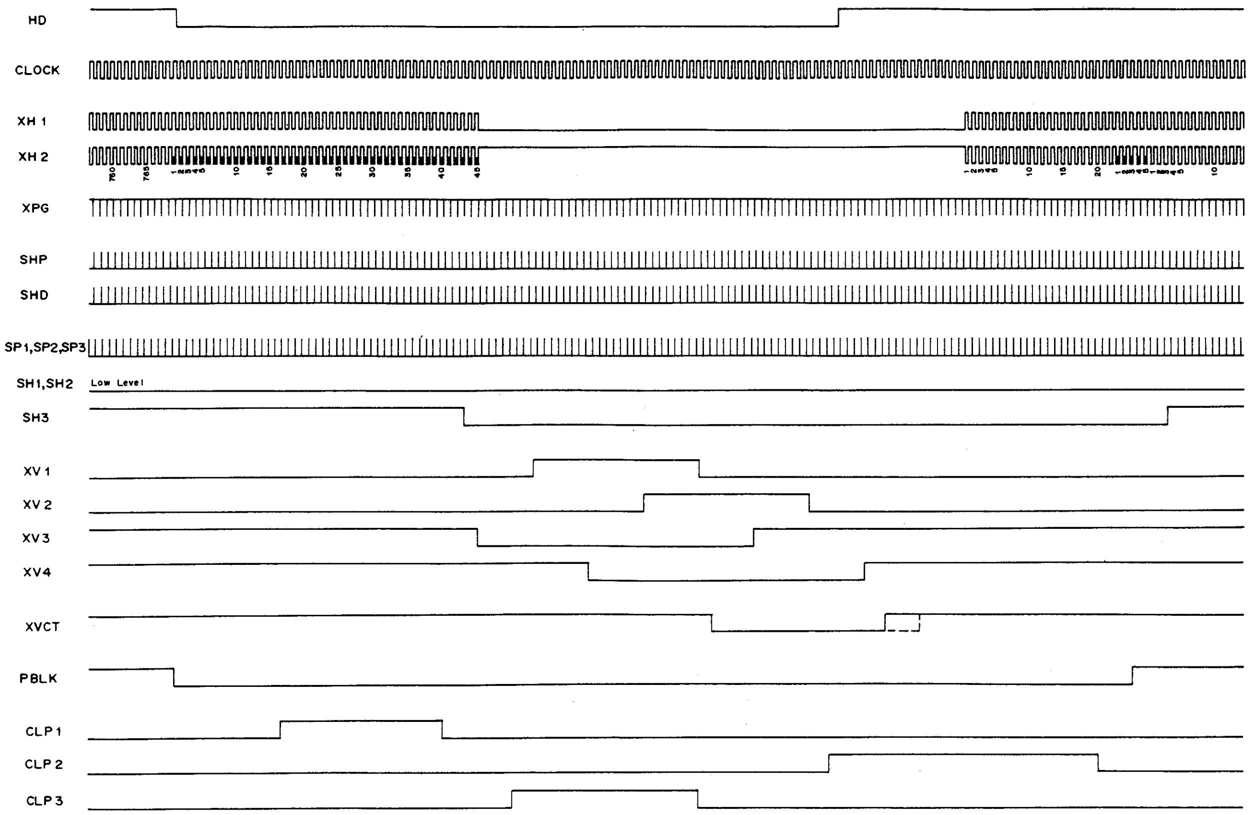
VIDEO SIGNAL FORMAT	CKIN
SMPTE 29.97HZ 525LINE	14.318MHZ
EBU 25HZ 625LINE	14.500MHZ

CKO	CLOCK OUTPUT
CRD	C READ INPUT ("L":READ)
CTLI	CTL SIGNAL INPUT
CWR	C WRITE INPUT ("L":WRITE)
D0-D7	DATA I/O (when DSP is low)/ ADDRESS INPUTS
DA0-DA3	E ADDRESS INPUTS (when DSP is high) D ADDRESS OUTPUT (when DSP is low)
DATA	DEMODULATED SERIAL DATA OUTPUT
DCLK	DEMODULATED CLOCK OUTPUT
DSP	DISPLAY BUS SELECT INPUT DSP controls CCS,DA0-DA3 and DVR.
DTSE	VITC DATA SEARCH FLAG OUTPUT
DWR	WRITE ENABLE OUTPUT ("L":ENABLE)(when DSP is low) E ADDRESS 4 INPUT (when DSP is high)
EA4	ADDRESS BUS INPUT
FLD1	FIELD REFERENCE INPUT ("L":FILD 1)
FRMI	FRAME SIGNAL INPUT
FRMO	FRAME SIGNAL OUTPUT
GCSI	COMPOSITE SYNC INPUT
GLSY	LOST SYNC FLAG OUTPUT
HDI	HORIZONTAL SYNC INPUT
HDO	HORIZONTAL SYNC OUTPUT
INT	ITERRUPT REQUEST OUTPUT
LPR	LTC READ REQUEST OUTPUT
LRES	LTC COUNTER RESET INPUT ("L":RESET)
LSHO	SYNCHRONOUS SIGNAL OUTPUT
LTCO	LTC SIGNAL OUTPUT
PON	SYSTEM RESET INPUT ("L":PON)
RCSI	COMPOSITE SYNC INPUT
RDSY	READ SYNC WORD DATA OUTPUT
RESS	RESET INPUT ("L":RTIM)
RFLD	FIELD DATA OUTPUT
RTIM	TIME ADDRESS RESET INPUT ("L":RESET)
RVDO	VITC READ DATA OUTPUT
S1	SIGNAL FORMAT SELECT INPUT "H":NTSC/PAL-M 29.94HZ 525LINE "L":PAL/SECAM 25Hz 625LINE
SLCK	SELECT CLOCK INPUT

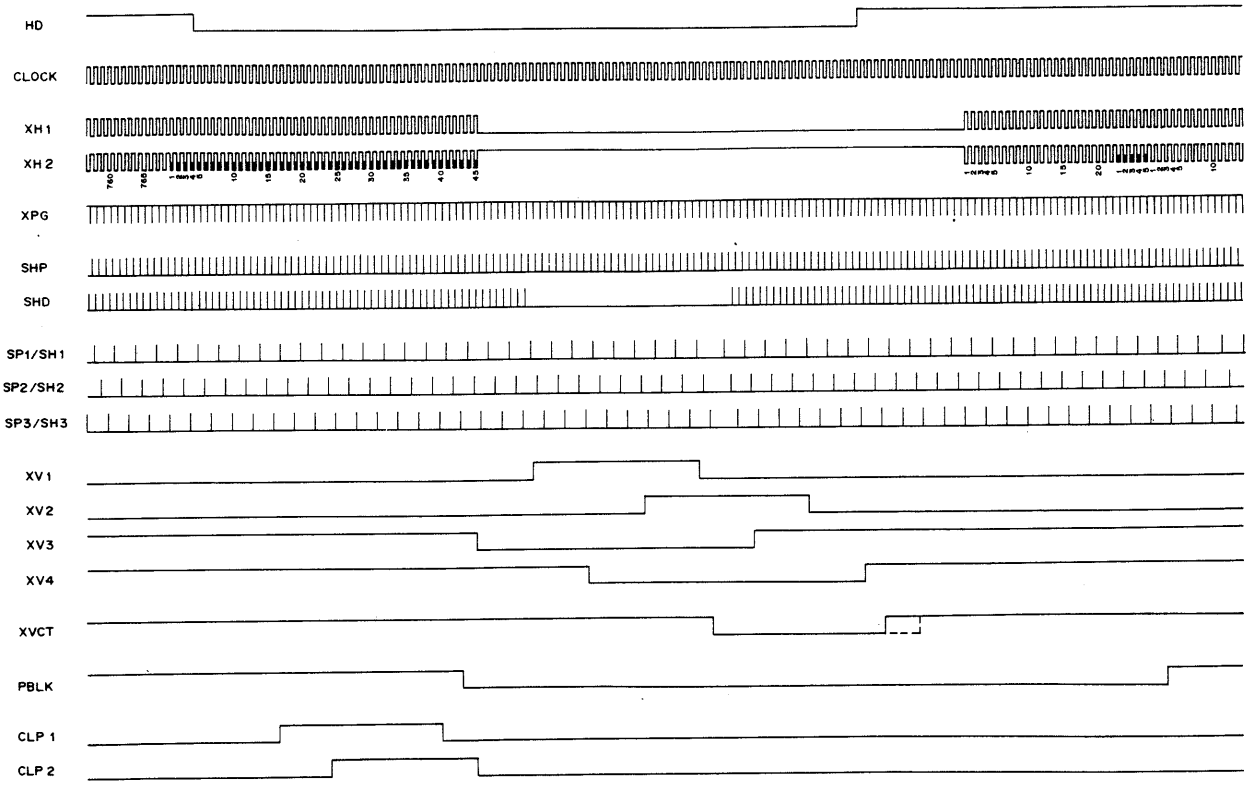
SLCK	"L"		"H"	
CKIN	14.318MHZ	14.5MHZ	7.159MHZ	7.25MHZ
SPEC	SMPTE	EBU	SMPTE	EBU

SLLM	READ SIZE SELECT INPUT
STBY	STANDBY READ FLAG INPUT
STOP	STOP OUTPUT ("L":STOP)
TCIN	LONGITUDINAL TIME AND CONTROL CODE INPUT
TST1-TST3	TEST INPUT
VCEI	LTC CLOCK INPUT
VDO	HORIZONTAL SYNC DRIVE OUTPUT
VITC	VITC SIGNAL INPUT
VTGO	VITC GATE SIGNAL OUTPUT
VTO	VITC SIGNAL OUTPUT ("H":VITC)

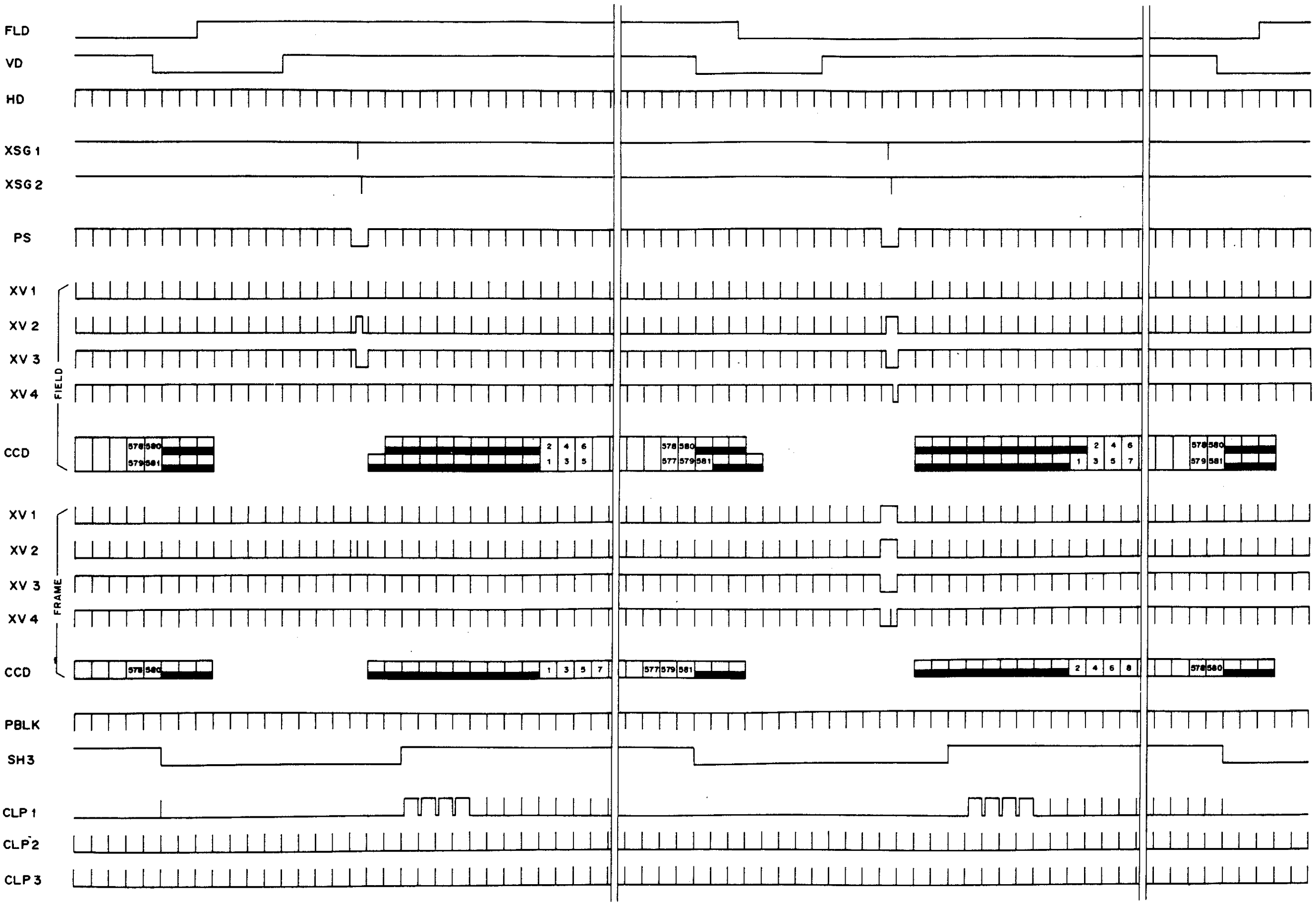
EIA (NTSC, PALM) B/W, 3-CHIP COLOR


HD
CLOCK
XH 1
XH 2
760
765
10
15
20
25
30
35
40
45
10
15
20
10
XPG
SHP
SHD
SP1,SP2,SP3
SH1,SH2
Low Level
SH3
XV 1
XV 2
XV3
XV4
XVCT
PBLK
CLP 1
CLP 2
CLP 3

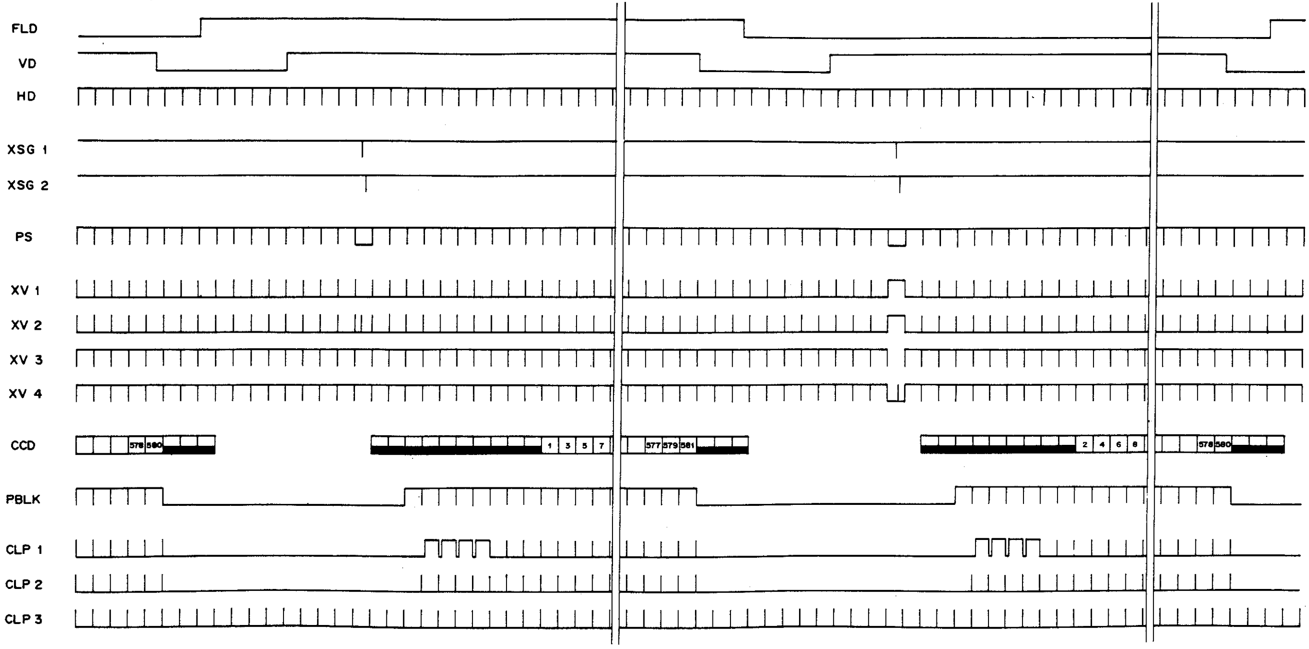
EIA(NTSC,PALM) 1-CHIP COLOR


HD
CLOCK
XH 1
XH 2
760
765
10
15
20
25
30
35
40
45
10
15
20
10
XPG
SHP
SHD
SP1/SH1
SP2/SH2
SP3/SH3
XV 1
XV2
XV3
XV4
XVCT
PBLK
CLP 1
CLP 2

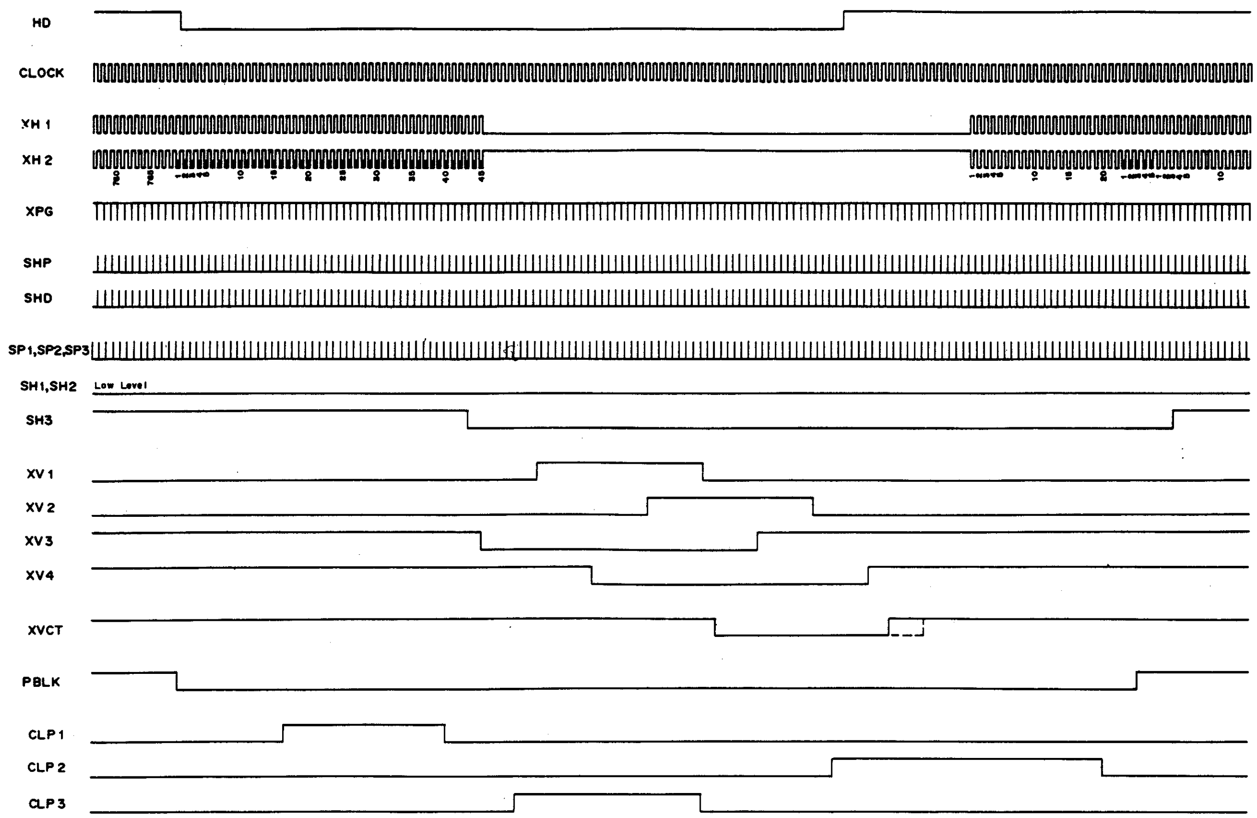
CCIR(PAL,SECAM) B/W,3-CHIP COLOR


FLD
VD
HD
XSG 1
XSG 2
PS
XV 1
XV 2
XV 3
XV 4
FIELD
CCD
578
580
579
581
2
4
6
1
3
5
577
7
XV 1
XV 2
XV 3
XV 4
FRAME
CCD
578
580
1
3
5
7
577
579
581
2
4
6
8
PBLK
SH3
CLP 1
CLP 2
CLP 3

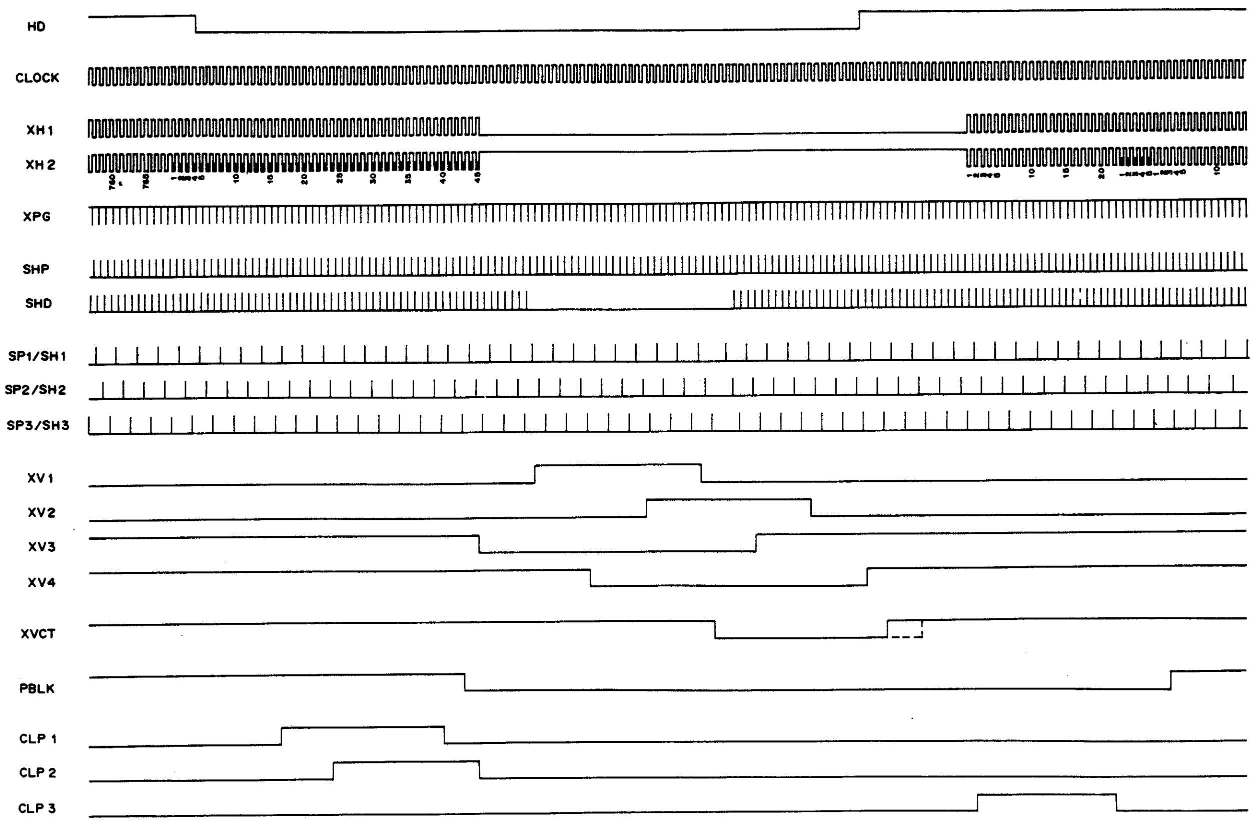
CCIR(PAL,SECAM) 1-CHIP COLOR


FLD
VD
HD
XSG 1
XSG 2
PS
XV 1
XV 2
XV 3
XV 4
CCD
578
580
1
3
5
7
577
579
581
2
4
6
8
PBLK
CLP 1
CLP 2
CLP 3

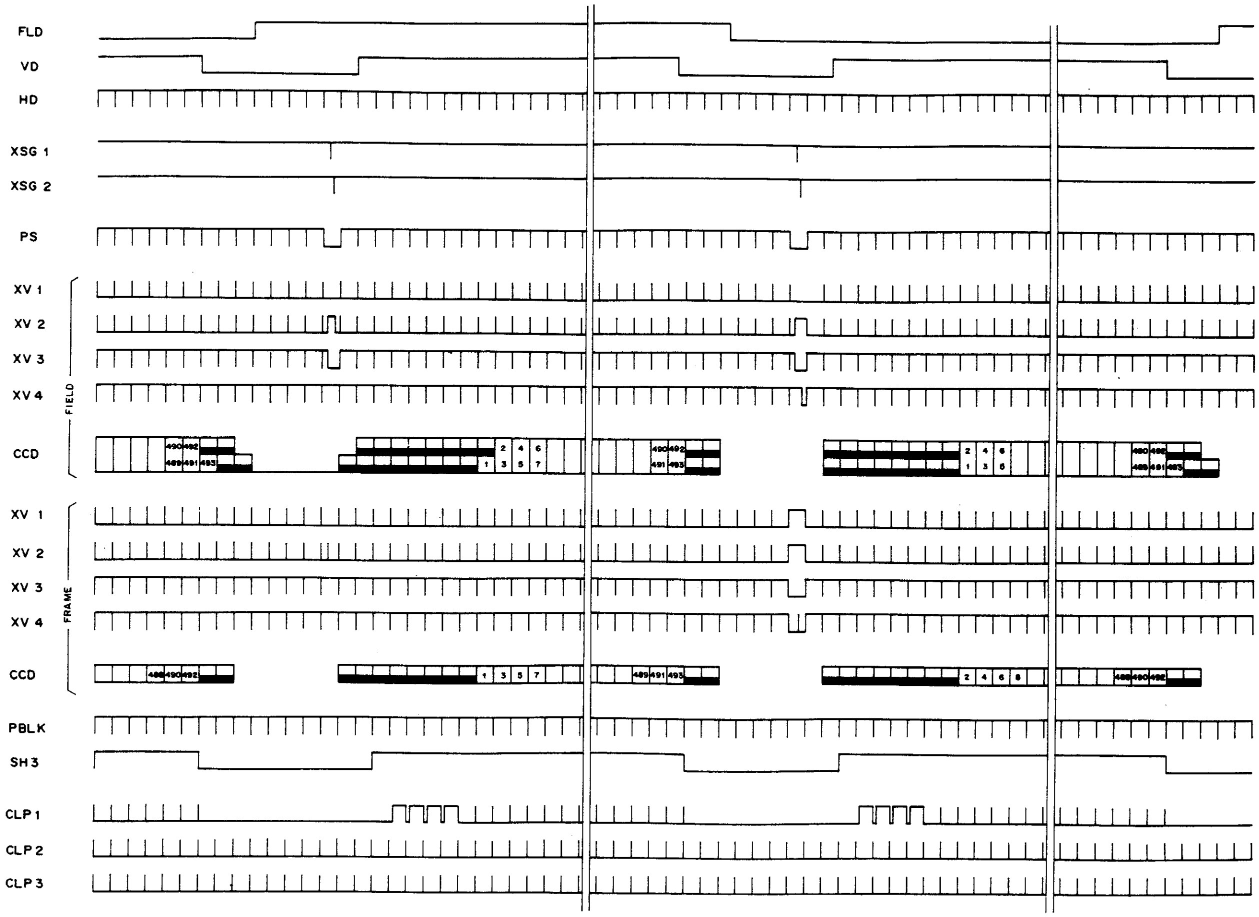
EIA (NTSC,PALM) B/W,3-CHIP COLOR


HD
CLOCK
XH 1
XH 2
XPG
SHP
SHD
SP1,SP2,SP3
SH1,SH2
Low Level
SH3
XV 1
XV 2
XV3
XV4
XVCT
PBLK
CLP 1
CLP 2
CLP 3

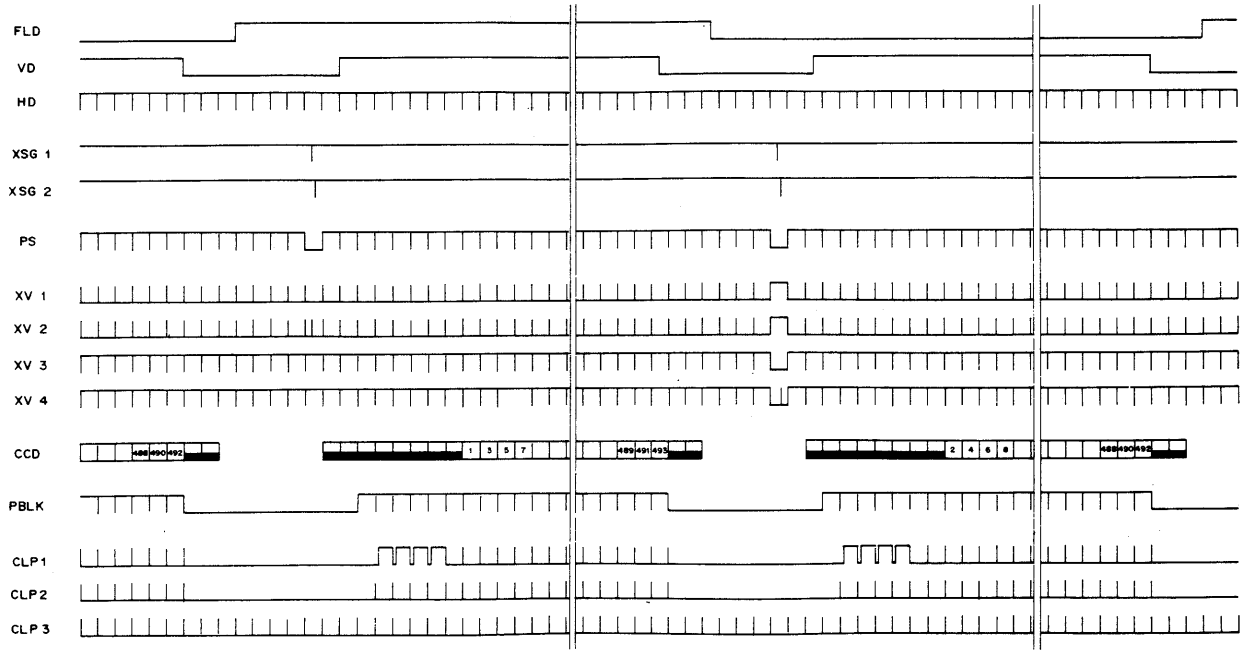
EIA(NTSC,PALM) 1-CHIP COLOR


HD
CLOCK
XH 1
XH 2
XPG
SHP
SHD
SP1/SH1
SP2/SH2
SP3/SH3
XV 1
XV2
XV3
XV4
XVCT
PBLK
CLP 1
CLP 2
CLP 3

EIA(NTSC,PALM) B/W,3-CHIP COLOR


FLD
VD
HD
XSG 1
XSG 2
PS
XV 1
XV 2
XV 3
XV 4
FIELD
CCD
490 492
489 491 493
2 4 6
1 3 5 7
490 492
491 493
2 4 6
1 3 5
XV 1
XV 2
XV 3
XV 4
FRAME
CCD
489 490 492
1 3 5 7
489 491 493
2 4 6 8
PBLK
SH3
CLP1
CLP2
CLP3

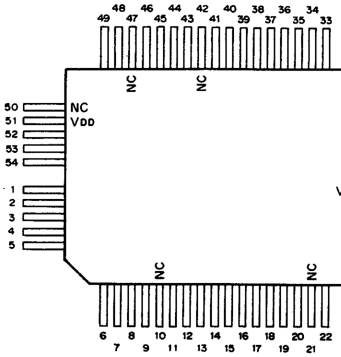
EIA(NTSC,PALM) 1-CHIP COLOR


FLD
VD
HD
XSG 1
XSG 2
PS
XV 1
XV 2
XV 3
XV 4
CCD
489 490 492
1 3 5 7
489 491 493
2 4 6 8
PBLK
CLP1
CLP2
CLP3

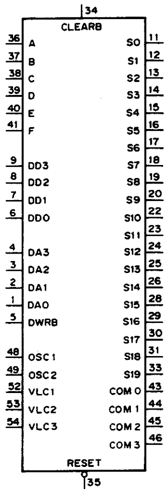
CXD1128Q (SONY) FLAT PACKAGE

C-MOS LCD CONTROLLER/DRIVER

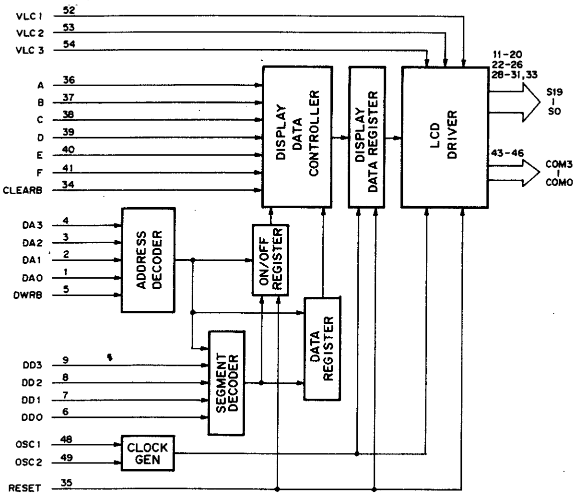
- TOP VIEW -


48 46 44 42 40 38 36 34
49 47 45 43 41 39 37 35 33
NC
NC
50 51 52 53 54
NC
VDD
1 2 3 4 5
NC
32 31 30 29 28
Vss
27 26 25 24 23
NC
NC
6 8 10 12 14 16 18 20 22
7 9 11 13 15 17 19 21

PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL
1	I	DA0	19	O	S8	37	I	B
2	I	DA1	20	O	S9	38	I	C
3	I	DA2	21	–	NC	39	I	D
4	I	DA3	22	O	S10	40	I	E
5	I	DWRB	23	O	S11	41	I	F
6	I	DD0	24	O	S12	42	–	NC
7	I	DD1	25	O	S13	43	O	COM0
8	I	DD2	26	O	S14	44	O	COM1
9	I	DD3	27	–	Vss	45	O	COM2
10	–	NC	28	O	S15	46	O	COM3
11	O	S0	29	O	S16	47	–	NC
12	O	S1	30	O	S17	48	I	OSC1
13	O	S2	31	O	S18	49	O	OSC2
14	O	S3	32	–	NC	50	–	NC
15	O	S4	33	O	S19	51	–	VDD
16	O	S5	34	I	CLEARB	52	I	VLC1
17	O	S6	35	I	RESET	53	I	VLC2
18	O	S7	36	I	A	54	I	VLC3


34
CLEARB
36 A
37 B
38 C
39 D
40 E
41 F
9 DD3
8 DD2
7 DD1
6 DD0
4 DA3
3 DA2
2 DA1
1 DA0
5 DWRB
48 OSC1
49 OSC2
52 VLC1
53 VLC2
54 VLC3
S0 11
S1 12
S2 13
S3 14
S4 15
S5 16
S6 17
S7 18
S8 19
S9 20
S10 22
S11 23
S12 24
S13 25
S14 26
S15 28
S16 29
S17 30
S18 31
S19 33
COM0 43
COM1 44
COM2 45
COM3 46
RESET
35

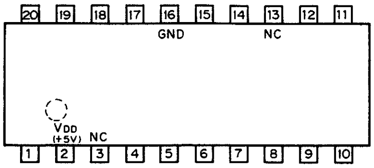
A-F ; STATUS INPUT
COM3-0 ; LCD COMMON OUTPUTS
CLEARB ;
DA3-0 ; ADRRESS INPUTS
DD3-0 ; DATA INPUTS
DWRB ; WRITE PULSE INPUT
OSC1,2 ; CR ELEMENT
RESET ; RESET PULSE INPUT
S19-0 ; LCD SEGMENT OUTPUTS
VLC3-1 ;


VLC1 52
VLC2 53
VLC3 54
A 36
B 37
C 38
D 39
E 40
F 41
CLEARB 34
DA3 4
DA2 3
DA1 2
DA0 1
DWRB 5
DD3 9
DD2 8
DD1 7
DD0 6
OSC1 48
OSC2 49
RESET 35
DISPLAY DATA CONTROLLER
DISPLAY DATA REGISTER
LCD DRIVER
ADDRESS DECODER
ON/OFF REGISTER
DATA REGISTER
SEGMENT DECODER
CLOCK GEN
11-20
22-26
28-31,33
S19
S0
43-46
COM3
COM0

CXD1216M (SONY) FLAT PACKAGE

C-MOS GENLOCK DRIVER

- TOP VIEW-


20 19 18 17 16 15 14 13 12 11
GND
NC
VDD (+5V)
NC
1 2 3 4 5 6 7 8 9 10

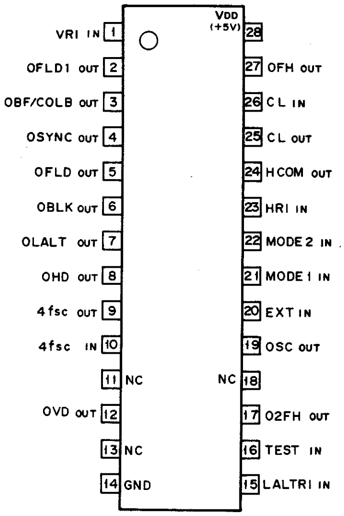
INPUTS		EXT LOCK MODE	
MODE 1	MODE 2		
0	0	M 1	PAL:VBS
1	0	M 2	PAL-M:VBS
0	1	M 3	PAL:VS/SC/LALT
			SECAM:VS/SC/LALT
1	1	M 4	NTSC:VBS
			NTSC:VS/SC
			PAL-M:VS/SC/LALT

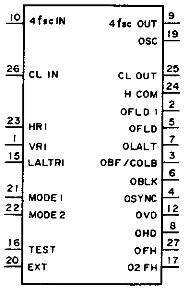
0; LOW LEVEL
1; HIGH LEVEL

CXD1217M (SONY) FLAT PACKAGE

C-MOS SYNC GENERATOR

- TOP VIEW -


VRI IN 1
OFLD1 OUT 2
OBF/COLB OUT 3
OSYNC OUT 4
OFLD OUT 5
OBLK OUT 6
OLALT OUT 7
OHD OUT 8
4fsc OUT 9
4fsc IN 10
11 NC
OVD OUT 12
13 NC
14 GND
VDD (+5V) 28
27 OFH OUT
26 CL IN
25 CL OUT
24 HCOM OUT
23 HRI IN
22 MODE 2 IN
21 MODE 1 IN
20 EXT IN
19 OSC OUT
NC 18
17 02FH OUT
16 TEST IN
15 LALTRI IN


10 4fsc IN
26 CL IN
23 HRI
1 VRI
15 LALTRI
21 MODE I
22 MODE 2
16 TEST
20 EXT
4fsc OUT 9
OSC 19
CL OUT 25
H COM 24
OFLD I 2
OFLD 5
OLALT 7
OBF/COLB 3
OBLK 6
OSYNC 4
OVD 12
OHD 8
OFH 27
02 FH 17

SYSTEM	4fsc	CLOCK
NTSC	910fH	910fH
PAL	1135fH+2fV	908fH
PALM	909fH	910fH
SECAM	—	908fH

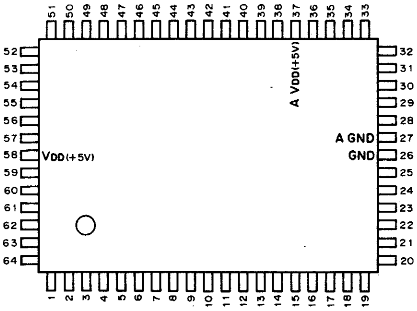
INPUT		SYSTEM
MODE1	MODE2	
0	0	NTSC
0	1	SECAM
1	0	PALM
1	1	PAL

0 ; LOW LEVEL
1 ; HIGH LEVEL

CXD8042Q (SONY) FLAT PACKAGE

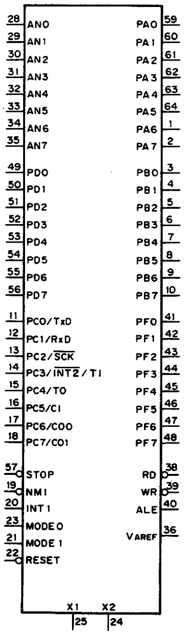
C-MOS TIMECODE CONTROLLER

- TOP VIEW -


A VDD(+5V)
A GND
GND
VDD(+5V)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
20 21 22 23 24 25 26 27 28 29 30 31 32
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51
52 53 54 55 56 57 58 59 60 61 62 63 64

(A $V_{DD} = +5V$)
($V_{DD} = +5V$)

PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	I/O	PA6	17	I/O	PC6/CO0	33	I	AN5	49	I/O	PD0
2	I/O	PA7	18	I/O	PC7/CO1	34	I	AN6	50	I/O	PD1
3	I/O	PB0	19	I	$\overline{\text{NMI}}$	35	I	AN7	51	I/O	PD2
4	I/O	PB1	20	I	INT1	36	I	V_{AREF}	52	I/O	PD3
5	I/O	PB2	21	I/O	MODE1	37	–	A V_{DD}	53	I/O	PD4
6	I/O	PB3	22	I	$\overline{\text{RESET}}$	38	O	$\overline{\text{RD}}$	54	I/O	PD5
7	I/O	PB4	23	I/O	MODE0	39	O	$\overline{\text{WR}}$	55	I/O	PD6
8	I/O	PB5	24	I	X2	40	O	ALE	56	I/O	PD7
9	I/O	PB6	25	I	X1	41	I/O	PF0	57	I	$\overline{\text{STOP}}$
10	I/O	PB7	26	–	GND	42	I/O	PF1	58	–	V_{DD}
11	I/O	PC0/TxD	27	–	A GND	43	I/O	PF2	59	I/O	PA0
12	I/O	PC1/RxD	28	I	AN0	44	I/O	PF3	60	I/O	PA1
13	I/O	PC2/$\overline{\text{SCK}}$	29	I	AN1	45	I/O	PF4	61	I/O	PA2
14	I/O	PC3/$\overline{\text{INT2}}$/TI	30	I	AN2	46	I/O	PF5	62	I/O	PA3
15	I/O	PC4/TO	31	I	AN3	47	I/O	PF6	63	I/O	PA4
16	I/O	PC5/CI	32	I	AN4	48	I/O	PF7	64	I/O	PA5


28 AN0
29 AN1
30 AN2
31 AN3
32 AN4
33 AN5
34 AN6
35 AN7
49 PD0
50 PD1
51 PD2
52 PD3
53 PD4
54 PD5
55 PD6
56 PD7
11 PC0/TxD
12 PC1/RxD
13 PC2/SCK
14 PC3/INT2/TI
15 PC4/TO
16 PC5/CI
17 PC6/CO0
18 PC7/CO1
57 STOP
19 NMI
20 INT1
23 MODE 0
21 MODE 1
22 RESET
PA0 59
PA1 60
PA2 61
PA3 62
PA4 63
PA5 64
PA6 1
PA7 2
PB0 3
PB1 4
PB2 5
PB3 6
PB4 7
PB5 8
PB6 9
PB7 10
PF0 41
PF1 42
PF2 43
PF3 44
PF4 45
PF5 46
PF6 47
PF7 48
RD 38
WR 39
ALE 40
VAREF 36
X1 25
X2 24

INPUT

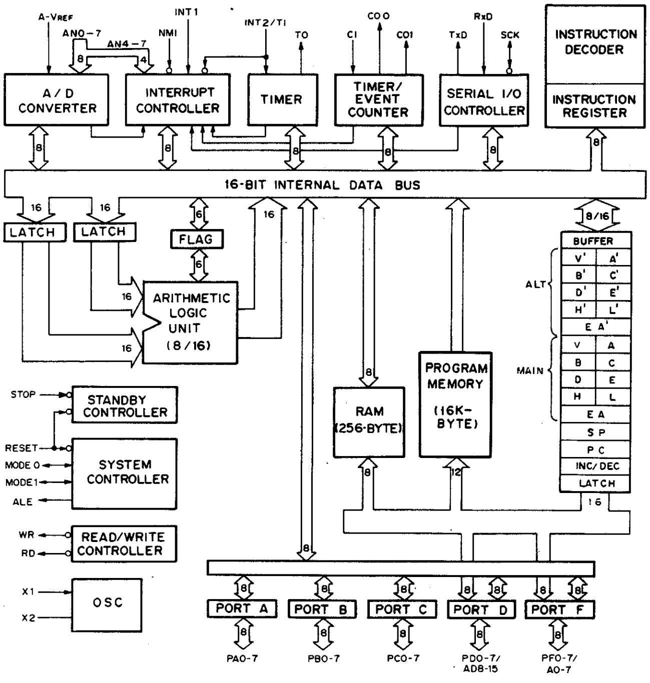
AN0-7	; ANALOG
CI	; COUNTER
INT1	; MASKABLE INTERRUPT REQUEST 1
INT2/T1	; MASKABLE INTERRUPT REQUEST 2/TIMER
NMI	; NON-MASKABLE INTERRUPT
RxD	; RECEIVE DATA
RESET	; SYSTEM RESET
STOP	; SYSTEM STOP
V_{AREF}	; REFERENCE VOLTAGE
X1,2	; EXTERNAL X'tal

OUTPUT

ALE	; ADDRESS LATCH ENABLE
CO0,1	; COUNTER OUTPUT 0,1
RD	; READ STROBE
TO	; TIMER
TxD	; TRANSMIT DATA
WR	; WRITE STROBE

INPUT/OUTPUT

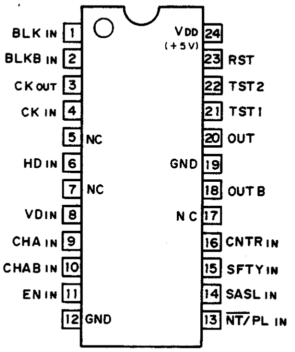
MODE 0,1	; MEMORY MODE 0,1
PA0-7	; PORT A
PB0-7	; PORT B
PC0-7	; PORT C
PD0-7	; PORT D
PF0-7	; PORT F
SCK	; SERIAL CLOCK

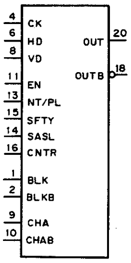

A-VREF
AN0-7
AN4-7
INT1
NMI
INT2/TI
TO
CO0
CI
CO1
RxD
TxD
SCK
A / D CONVERTER
INTERRUPT CONTROLLER
TIMER
TIMER/ EVENT COUNTER
SERIAL I/O CONTROLLER
INSTRUCTION DECODER
INSTRUCTION REGISTER
16-BIT INTERNAL DATA BUS
LATCH
LATCH
FLAG
ARITHMETIC LOGIC UNIT (8/16)
8/16
BUFFER
ALT
MAIN
V' A'
B' C'
D' E'
H' L'
E A'
V A
B C
D E
H L
E A
S P
P C
INC/DEC
LATCH
RAM (256-BYTE)
PROGRAM MEMORY (16K-BYTE)
STOP
STANDBY CONTROLLER
RESET
MODE 0
MODE 1
ALE
SYSTEM CONTROLLER
WR
RD
READ/WRITE CONTROLLER
X1
X2
OSC
PORT A
PORT B
PORT C
PORT D
PORT F
PA0-7
PB0-7
PC0-7
PD0-7/ AD8-15
PF0-7/ A0-7
8
16
12

CXD8154AM (SONY)
CXD8154BM (SONY)

C-MOS GATE ARRAY

- TOP VIEW -


BLK IN 1
BLKB IN 2
CK OUT 3
CK IN 4
5 NC
HD IN 6
7 NC
VD IN 8
CHA IN 9
CHAB IN 10
EN IN 11
12 GND
VDD (+5V) 24
23 RST
22 TST2
21 TST1
20 OUT
GND 19
18 OUT B
N C 17
16 CNTR IN
15 SFTY IN
14 SASL IN
13 NT/PL IN

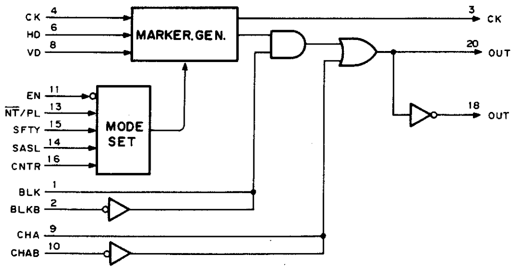

4 CK
6 HD
8 VD
11 EN
13 NT/PL
15 SFTY
14 SASL
16 CNTR
1 BLK
2 BLKB
9 CHA
10 CHAB
OUT 20
OUTB 18

INPUT

BLK	; BLKG IN
BLKB	; $\overline{\text{BLKG}}$ IN
CHA	; CHR IN
CHAB	; $\overline{\text{CHR}}$ IN
CK	; CLOCK IN
CNTR	; CENTER $\overline{\text{ON}}$/OFF
EN	; ENABLE IN
HD	; HORIZONTAL DRIVE IN
$\overline{\text{NT}}$/PL	; $\overline{\text{NTSC}}$/PAL
RST	; RESET
SASL	; SAFETY $\overline{\text{80}}$/90
SFTY	; SAFETY $\overline{\text{ON}}$/OFF
VD	; VERTICAL DRIVE IN
TST1	; TEST 1
TST2	; TEST 2

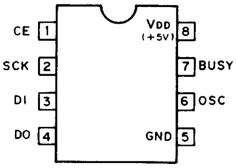
OUTPUT

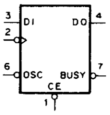
OUT	; OUTPUT
OUTB	; $\overline{\text{OUTPUT}}$
CKO	; CLOCK OUT

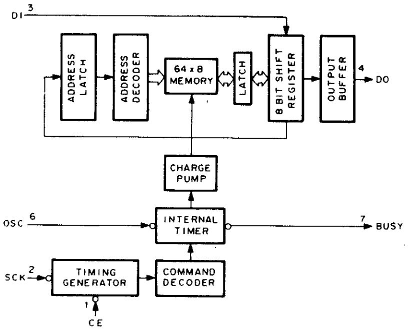

CK 4
HD 6
VD 8
MARKER.GEN.
3 CK
20 OUT
18 OUT B
EN 11
NT/PL 13
SFTY 15
SASL 14
CNTR 16
MODE SET
BLK 1
BLKB 2
CHA 9
CHAB 10

CXK1011P (SONY)

N-MOS 512-BIT (64X8) NON-VOLATILE MEMORY
- TOP VIEW -


CE 1
SCK 2
DI 3
DO 4
VDD (+5V) 8
7 BUSY
6 OSC
GND 5


3 DI
2
6 OSC
DO 4
BUSY 7
CE
1

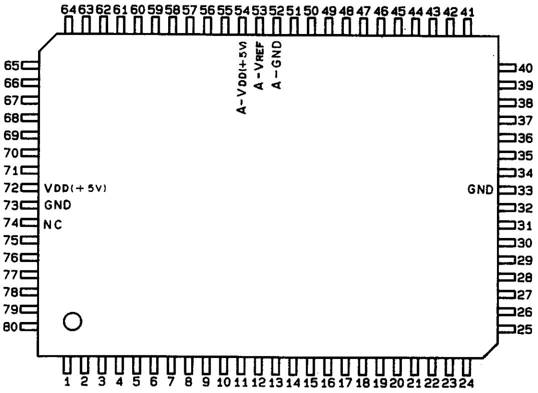

DI 3
ADDRESS LATCH
ADDRESS DECODER
64 x 8 MEMORY
LATCH
8 BIT SHIFT REGISTER
OUTPUT BUFFER
4 DO
CHARGE PUMP
OSC 6
INTERNAL TIMER
7 BUSY
SCK 2
TIMING GENERATOR
COMMAND DECODER
1
CE

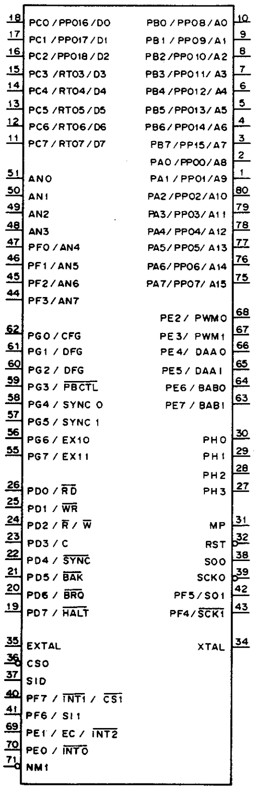
(V_{DD} = + 5V)

PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL
1	O	PA1/PPO1/A9	41	I	PF6/SI1
2	O	PA0/PPO0/A8	42	I/O	PF5/SO1
3	O	PB7/PPO15/A7	43	I,I/O	PF4/$\overline{\mathrm{SCK1}}$
4	O	PB6/PPO14/A6	44	I	PF3/AN7
5	O	PB5/PPO13/A5	45	I	PF2/AN6
6	O	PB4/PPO12/A4	46	I	PF1/AN5
7	O	PB3/PPO11/A3	47	I	PF0/AN4
8	O	PB2/PPO10/A2	48	I	AN3
9	O	PB1/PPO9/A1	49	I	AN2
10	O	PB0/PPO8/A0	50	I	AN1
11	I/O,O,I/O	PC7/RTO7/D7	51	I	AN0
12	I/O,O,I/O	PC6/RTO6/D6	52	–	A-GND
13	I/O,O,I/O	PC5/RTO5/D5	53	–	A-V_{REF}
14	I/O,O,I/O	PC4/RTO4/D4	54	–	A-V_{DD}
15	I/O,O,I/O	PC3/RTO3/D3	55	I	PG7/EXI1
16	I/O,O,I/O	PC2/PPO18/D2	56	I	PG6/EXI0
17	I/O,O,I/O	PC1/PPO17/D1	57	I	PG5/SYNC1
18	I/O,O,I/O	PC0/PPO16/D0	58	I	PG4/SYNC0
19	I/O,O	PD7/$\overline{\mathrm{HALT}}$	59	I	PG3/$\overline{\mathrm{PBCTL}}$
20	I/O,O	PD6/$\overline{\mathrm{BRQ}}$	60	I	PG2/DPG
21	I/O,O	PD5/$\overline{\mathrm{BAK}}$	61	I	PG1/DFG
22	I/O,O	PD4/$\overline{\mathrm{SYNC}}$	62	I	PG0/CFG
23	I/O,O	PD3/C	63	O	PE7/DAB1
24	I/O,O	PD2/R/$\overline{\mathrm{W}}$	64	O	PE6/DAB0
25	I/O,O	PD1/$\overline{\mathrm{WR}}$	65	O	PE5/DAA1
26	I/O,O	PD0/$\overline{\mathrm{RD}}$	66	O	PE4/DAA0
27	O	PH3	67	O	PE3/PWM1
28	O	PH2	68	O	PE2/PWM0
29	O	PH1	69	I	PE1/$\overline{\mathrm{EC}}$/$\overline{\mathrm{INT2}}$
30	O	PH0	70	I	PE0/$\overline{\mathrm{INT0}}$
31	I	MP	71	I	$\overline{\mathrm{NMI}}$
32	I/O	RST	72	–	V_{DD}
33	–	GND	73	–	GND
34	O	XTAL	74	–	NC
35	I	EXTAL	75	O	PA7/PPO7/A15
36	I	CS0	76	O	PA6/PPO6/A14
37	I	SI0	77	O	PA5/PPO5/A13
38	O	SO0	78	O	PA4/PPO4/A12
39	I/O	SCK0	79	O	PA3/PPO3/A11
40	I	PF7/$\overline{\mathrm{INT1}}$/$\overline{\mathrm{CS1}}$	80	O	PA2/PPO2/A10

CXP80116 (SONY) FLAT PACKAGE

C-MOS 8-BIT MICROCOMPUTER
- TOP VIEW -


64 63 62 61 60 59 58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41
A-VDD(+5V)
A-VREF
A-GND
65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80
VDD(+5V)
GND
NC
GND
40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24


18 PC0 / PPO16 / D0
17 PC1 / PPO17 / D1
16 PC2 / PPO18 / D2
15 PC3 / RTO3 / D3
14 PC4 / RTO4 / D4
13 PC5 / RTO5 / D5
12 PC6 / RTO6 / D6
11 PC7 / RTO7 / D7
51 AN0
50 AN1
49 AN2
48 AN3
47 PF0 / AN4
46 PF1 / AN5
45 PF2 / AN6
44 PF3 / AN7
62 PG0 / CFG
61 PG1 / DFG
60 PG2 / DFG
59 PG3 / PBCTL
58 PG4 / SYNC 0
57 PG5 / SYNC 1
56 PG6 / EX10
55 PG7 / EX11
26 PD0 / RD
25 PD1 / WR
24 PD2 / R / W
23 PD3 / C
22 PD4 / SYNC
21 PD5 / BAK
20 PD6 / BRQ
19 PD7 / HALT
35 EXTAL
36 CS0
37 SID
40 PF7 / INT1 / CS1
41 PF6 / SI1
69 PE1 / EC / INT2
70 PE0 / INT0
71 NM1
PB0 / PPO8 / A0 10
PB1 / PPO9 / A1 9
PB2 / PPO10 / A2 8
PB3 / PPO11 / A3 7
PB4 / PPO12 / A4 6
PB5 / PPO13 / A5 5
PB6 / PPO14 / A6 4
PB7 / PP15 / A7 3
PA0 / PPO0 / A8 2
PA1 / PPO1 / A9 1
PA2 / PPO2 / A10 80
PA3 / PPO3 / A11 79
PA4 / PPO4 / A12 78
PA5 / PPO5 / A13 77
PA6 / PPO6 / A14 76
PA7 / PPO7 / A15 75
PE2 / PWM0 68
PE3 / PWM1 67
PE4 / DAA0 66
PE5 / DAA1 65
PE6 / BAB0 64
PE7 / BAB1 63
PH0 30
PH1 29
PH2 28
PH3 27
MP 31
RST 32
SO0 38
SCK0 39
PF5 / SO1 42
PF4 / SCK1 43
XTAL 34

INPUT

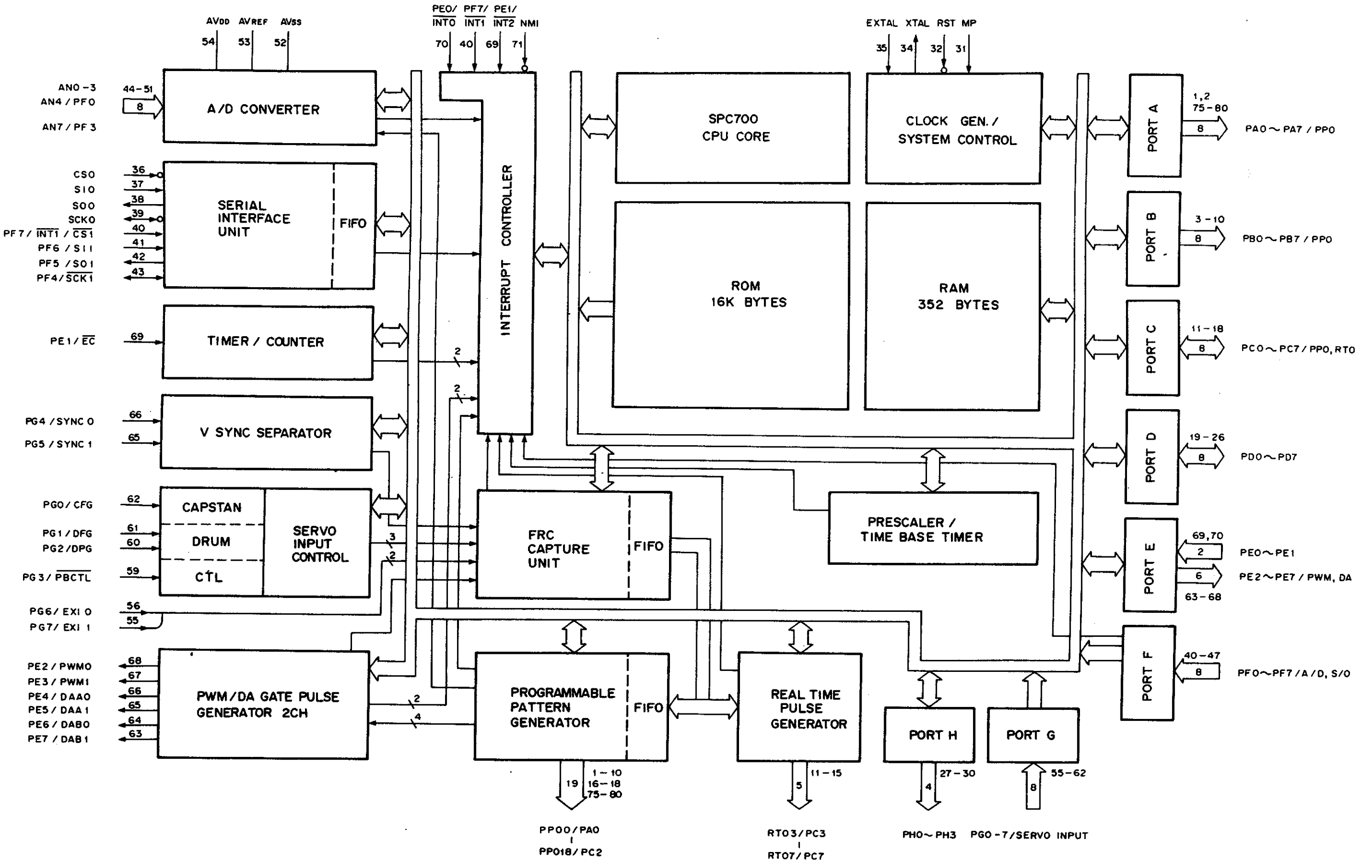
AN0 – AN7	: ANALOG INPUTS
BRQ	: BUS REQUEST INPUT
CFG	: CAPSTAN FG INPUT
CS0,1	: CHIP SELECT INPUTS
DFG	: DRUM FG INPUT
DPG	: DRUM PG INPUT
EC	: EVENT INPUT
EXI0,1	: EXTERNAL INPUTS
EXTAL	: SYSTEM CLOCK GENERATE JOINT
HALT	: CPU STOP INPUT
INT0 – INT2	: EXTERNAL OFFERING INPUTS
MP	: MICRO PROSESSOR MODE INPUT
NMI	: NONMASKABLE OFFERING INPUT
PBCTL	: PB CTL PULSE INPUT
PE0,1	: PORT E INPUTS
PF0 – PF7	: PORT F INPUTS
PG0 – PG7	: PORT G INPUTS
SI0,1	: SERIAL DATA INPUTS
SYNC0,1	: COMPOSITE SYNC INPUTS

OUTPUT

A0 – A15	: ADDRESS BUS OUTPUTS
BAK	: BUS ACKNOWLEGE OUTPUT
C	: TIMING SIGNAL OUTPUT
DAA0,1	: DA GATE PULSE OUTPUTS
DAB0,1	: DA GATE PULSE OUTPUTS
PA0 – PA7	: PORT A OUTPUTS
PB0 – PB7	: PORT B OUTPUTS
PE2 – PE7	: PORT E OUTPUTS
PH0 – PH3	: PORT H OUTPUTS
PPO0 – PPO18	: PROGRAMMABLE PATTERN GENERATOR OUTPUTS
PWM0,1	: PWM OUTPUTS
R/W	: CPU MACHINE SYCLE
RD	: READ
RTO3 – RTO7	: REAL TIME PULSE OUTPUTS
SO0,1	: SERIAL DATA OUTPUTS
SYNC	: SYNC
WR	: WRITE
XTAL	: SYSTEM CLOCK GENERATER OUTPUT

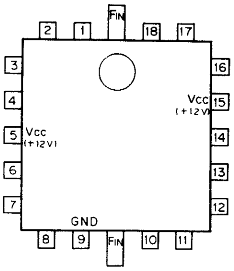
INPUT/OUTPUT

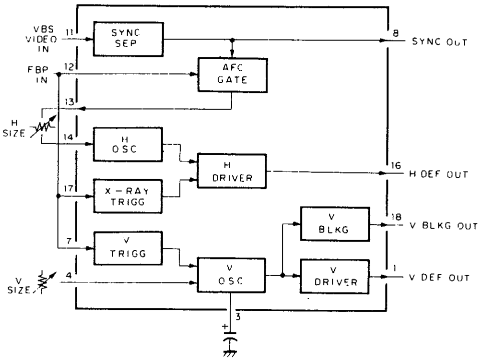
D0 – D7	: DATA BUS
PC0 – PC7	: PORT C
PD0 – PD7	: PORT D
RST	: RESET
SCK0,1	: SERIAL CLOCK


AVDD AVREF AVSS
54 53 52
PE0/ PF7/ PE1/
INT0 INT1 INT2 NMI
70 40 69 71
EXTAL XTAL RST MP
35 34 32 31
AN0-3
AN4 / PF0
AN7 / PF 3
44-51
8
A/D CONVERTER
CS0
SI0
SO0
SCK0
PF7/ INT1 / CS1
PF6 / SI1
PF5 / SO1
PF4/SCK1
36 37 38 39 40 41 42 43
SERIAL INTERFACE UNIT
FIFO
PE1/EC
69
TIMER / COUNTER
PG4 /SYNC 0
PG5 / SYNC 1
66
65
V SYNC SEPARATOR
PG0/ CFG
PG1 / DFG
PG2/DPG
PG3/ PBCTL
62 61 60 59
CAPSTAN
DRUM
CTL
SERVO INPUT CONTROL
PG6/ EXI 0
PG7/ EXI 1
56
55
PE2 / PWM0
PE3 / PWM1
PE4 / DAA0
PE5 / DAA1
PE6 / DAB0
PE7 / DAB1
68 67 66 65 64 63
PWM/DA GATE PULSE GENERATOR 2CH
INTERRUPT CONTROLLER
SPC700 CPU CORE
CLOCK GEN. / SYSTEM CONTROL
ROM 16K BYTES
RAM 352 BYTES
FRC CAPTURE UNIT
FIFO
PRESCALER / TIME BASE TIMER
PROGRAMMABLE PATTERN GENERATOR
FIFO
REAL TIME PULSE GENERATOR
PORT H
PORT G
PORT A
1,2
75-80
8
PA0～PA7 / PP0
PORT B
3-10
8
PB0～PB7 / PP0
PORT C
11-18
8
PC0～PC7 / PP0, RTO
PORT D
19-26
8
PD0～PD7
PORT E
69,70
2
PE0～PE1
6
PE2～PE7 / PWM, DA
63-68
PORT F
40-47
8
PF0～PF7 / A/D, S/O
2
2
3
2
2
4
19
1-10
16-18
75-80
PP00/PA0
PP018/PC2
5
11-15
RT03/PC3
RT07/PC7
4
27-30
PH0～PH3
8
55-62
PG0-7/SERVO INPUT

HA11423MP (HITACHI) FLAT PACKAGE

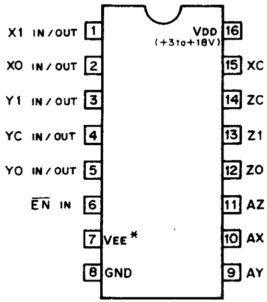
TV H/V SYNC SIGNAL PROCESSOR
- TOP VIEW -


FIN
2
1
18
17
3
16
4
Vcc
(+12V)
15
5
Vcc
(+12V)
14
6
13
7
12
GND
8
9
FIN
10
11

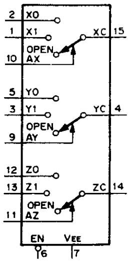

VBS VIDEO IN
11
SYNC SEP
8
SYNC OUT
FBP IN
12
AFC GATE
13
H SIZE
14
H OSC
H DRIVER
16
H DEF OUT
17
X-RAY TRIGG
V BLKG
18
V BLKG OUT
7
V TRIGG
V SIZE
4
V OSC
V DRIVER
1
V DEF OUT
3

HD14053BFP (HITACHI) FLAT PACKAGE

C-MOS TRIPLE 2-CHANNEL ANALOG MULTIPLEXERS/DEMULTIPLEXERS
- TOP VIEW -


X1 IN/OUT 1
X0 IN/OUT 2
Y1 IN/OUT 3
YC IN/OUT 4
Y0 IN/OUT 5
EN IN 6
7 VEE*
8 GND
VDD (+3 to +18V) 16
15 XC IN/OUT
14 ZC IN/OUT
13 Z1 IN/OUT
12 Z0 IN/OUT
11 AZ IN/OUT
10 AX IN/OUT
9 AY IN/OUT

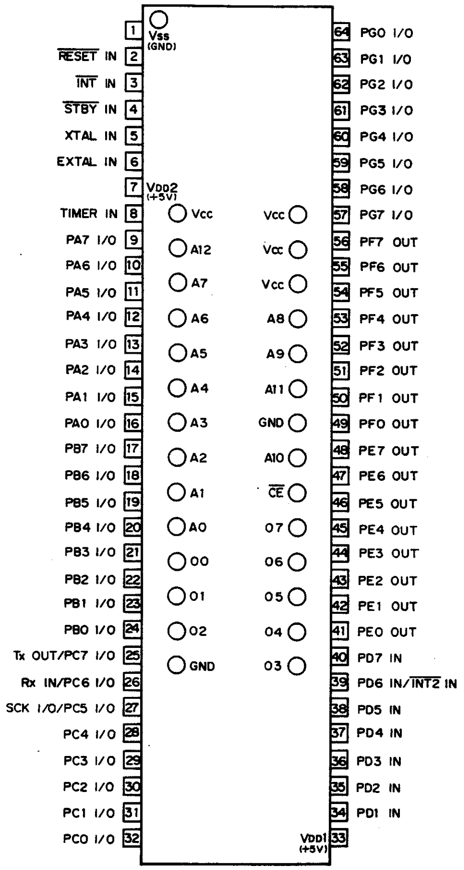
VEE*; VDD-VEE = +3 to +18 V

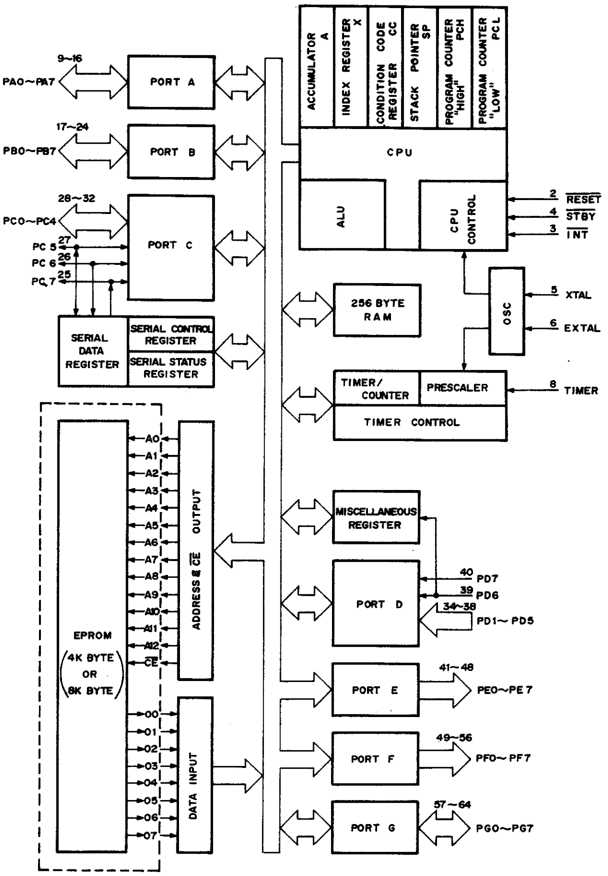

2 X0
1 X1
XC 15
OPEN
10 AX
5 Y0
3 Y1
YC 4
OPEN
9 AY
12 Z0
13 Z1
ZC 14
OPEN
11 AZ
EN VEE
6 7

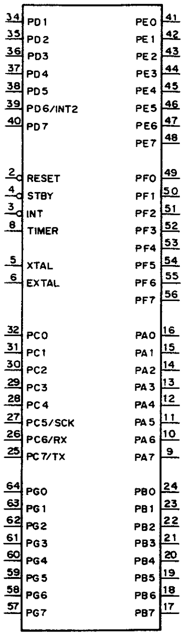
0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE.

CONT. INPUTS		ON
EN	A (X,Y,Z,)	CHANNEL
0	0	0
0	1	1
1	X	OPEN

HD63P05Y0 (HITACHI) (INSTRUCTION CYCLE = 1 uS ; fck = 4MHz)
C-MOS 8-BIT MICROCOMPUTER UNIT
- TOP VIEW -

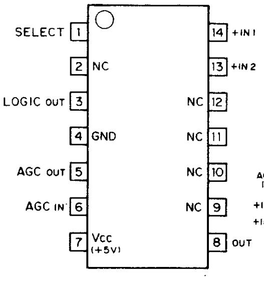

1 Vss (GND)
RESET IN 2
INT IN 3
STBY IN 4
XTAL IN 5
EXTAL IN 6
7 VDD2 (+5V)
TIMER IN 8
PA7 I/O 9
PA6 I/O 10
PA5 I/O 11
PA4 I/O 12
PA3 I/O 13
PA2 I/O 14
PA1 I/O 15
PA0 I/O 16
PB7 I/O 17
PB6 I/O 18
PB5 I/O 19
PB4 I/O 20
PB3 I/O 21
PB2 I/O 22
PB1 I/O 23
PB0 I/O 24
Tx OUT/PC7 I/O 25
Rx IN/PC6 I/O 26
SCK I/O/PC5 I/O 27
PC4 I/O 28
PC3 I/O 29
PC2 I/O 30
PC1 I/O 31
PC0 I/O 32
VDD1 (+5V) 33
34 PD1 IN
35 PD2 IN
36 PD3 IN
37 PD4 IN
38 PD5 IN
39 PD6 IN/INT2 IN
40 PD7 IN
41 PE0 OUT
42 PE1 OUT
43 PE2 OUT
44 PE3 OUT
45 PE4 OUT
46 PE5 OUT
47 PE6 OUT
48 PE7 OUT
49 PF0 OUT
50 PF1 OUT
51 PF2 OUT
52 PF3 OUT
53 PF4 OUT
54 PF5 OUT
55 PF6 OUT
56 PF7 OUT
57 PG7 I/O
58 PG6 I/O
59 PG5 I/O
60 PG4 I/O
61 PG3 I/O
62 PG2 I/O
63 PG1 I/O
64 PG0 I/O
Vcc A12 A7 A6 A5 A4 A3 A2 A1 A0 O0 O1 O2 GND
Vcc Vcc Vcc A8 A9 A11 GND A10 CE O7 O6 O5 O4 O3

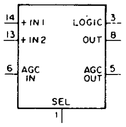

ACCUMULATOR A
INDEX REGISTER X
CONDITION CODE REGISTER CC
STACK POINTER SP
PROGRAM COUNTER "HIGH" PCH
PROGRAM COUNTER "LOW" PCL
CPU
ALU
CPU CONTROL
2 RESET
4 STBY
3 INT
OSC
5 XTAL
6 EXTAL
256 BYTE RAM
TIMER/COUNTER
PRESCALER
TIMER CONTROL
8 TIMER
MISCELLANEOUS REGISTER
PORT A
PA0~PA7
9~16
PORT B
PB0~PB7
17~24
PORT C
PC0~PC4
28~32
PC 5 27
PC 6 26
PC 7 25
SERIAL DATA REGISTER
SERIAL CONTROL REGISTER
SERIAL STATUS REGISTER
EPROM (4K BYTE OR 8K BYTE)
A0 A1 A2 A3 A4 A5 A6 A7 A8 A9 A10 A11 A12 CE
ADDRESS & CE OUTPUT
O0 O1 O2 O3 O4 O5 O6 O7
DATA INPUT
PORT D
40 PD7
39 PD6
34~38 PD1~PD5
PORT E
41~48
PE0~PE7
PORT F
49~56
PF0~PF7
PORT G
57~64
PG0~PG7

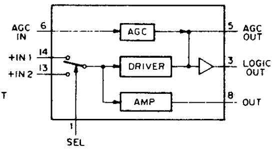

34 PD1
35 PD2
36 PD3
37 PD4
38 PD5
39 PD6/INT2
40 PD7
2 RESET
4 STBY
3 INT
8 TIMER
5 XTAL
6 EXTAL
32 PC0
31 PC1
30 PC2
29 PC3
28 PC4
27 PC5/SCK
26 PC6/RX
25 PC7/TX
64 PG0
63 PG1
62 PG2
61 PG3
60 PG4
59 PG5
58 PG6
57 PG7
PE0 41
PE1 42
PE2 43
PE3 44
PE4 45
PE5 46
PE6 47
PE7 48
PF0 49
PF1 50
PF2 51
PF3 52
PF4 53
PF5 54
PF6 55
PF7 56
PA0 16
PA1 15
PA2 14
PA3 13
PA4 12
PA5 11
PA6 10
PA7 9
PB0 24
PB1 23
PB2 22
PB3 21
PB4 20
PB5 19
PB6 18
PB7 17

PA0 ~ PA7 ; 8-BIT I/O PORT A
PB0 ~ PB7 ; 8-BIT I/O PORT B
PC0 ~ PC7 ; 8-BIT I/O PORT C
PD1 ~ PD7 ; 7-BIT IN PORT D
PE0 ~ PE7 ; 8-BIT OUT PORT E
PF0 ~ PF7 ; 8-BIT OUT PORT F
PG0 ~ PG7 ; 8-BIT I/O PORT G
RESET ; RESET IN
STBY ; STANDBY IN
INT ; INTERRUPT IN
INT2 ; INTERRUPT IN
TIMER ; TIMER CONTROL IN
TIMER2 ; TIMER CONTROL IN
XTAL ; CRYSTAL
EXTAL ; EXTERNAL CRYSTAL IN
SCK ; SERIAL INTERFACE CLOCK I/O
RX ; SERIAL DATA RECEIVE
TX ; SERIAL DATA TRANSMIT

LA7205M (SANYO) FLAT PACKAGE
TAPE TOP/END DETECTOR
- TOP VIEW -

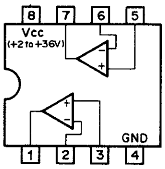

SELECT 1
2 NC
LOGIC OUT 3
4 GND
AGC OUT 5
AGC IN 6
7 Vcc (+5V)
14 +IN1
13 +IN2
NC 12
NC 11
NC 10
NC 9
8 OUT


14 +IN1
13 +IN2
6 AGC IN
LOGIC 3
OUT 8
AGC OUT 5
SEL
1


AGC IN 6
+IN1 14
+IN2 13
AGC
DRIVER
AMP
5 AGC OUT
3 LOGIC OUT
8 OUT
1
SEL

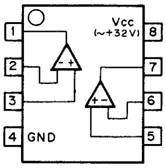
LM2903M (RAYTHEON) FLAT PACKAGE

DUAL VOLTAGE COMPARATORS
- TOP VIEW -


8
7
6
5
Vcc
(+2 to +36V)
GND
1
2
3
4

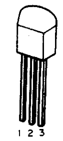
LM2904M (NSC) FLAT PACKAGE

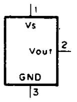
OPERATIONAL AMPLIFIER
- TOP VIEW -

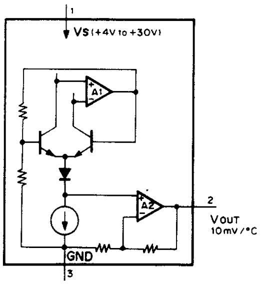

Vcc
(~+32V)
1
2
3
4 GND
8
7
6
5

LM35DZ (NS)

BIPOLAR TEMPERATURE SENSOR

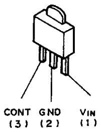


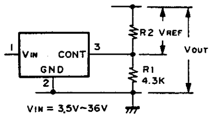

1
Vs
Vout 2
GND
3


1
Vs (+4V to +30V)
A1
A2
2
Vout
10mV/°C
GND
3

M5237ML (MITSUBISHI)

ADJUSTABLE VOLTAGE REGULATOR


CONT (3)
GND (2)
VIN (1)


1
VIN
CONT
GND
2
3
R2
VREF
VOUT
R1
4.3K

$V_{IN} = 3.5V \sim 36V$

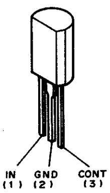
$V_{OUT} = 1.5V \sim 33V$

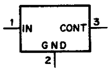
$V_{OUT} = V_{REF}\left(1+\frac{R2}{R1}\right) \fallingdotseq 1.26 \times \left(1+\frac{R2}{4.3}\right)(V)$

$(R1 = 4.3K\Omega,\ V_{REF} \fallingdotseq 1.26V)$

M5237L (MITSUBISHI)

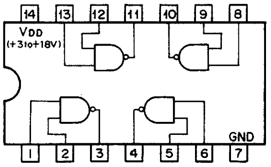
ADJUSTABLE VOLTAGE REGULATOR

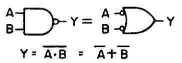

IN (1)
GND (2)
CONT (3)


1
IN
CONT
3
GND
2

MC14011BF (MOTOROLA) FLAT PACKAGE

C-MOS 2-INPUT NAND GATE
- TOP VIEW -


14
13
12
11
10
9
8
VDD
(+3 to +18V)
GND
1
2
3
4
5
6
7



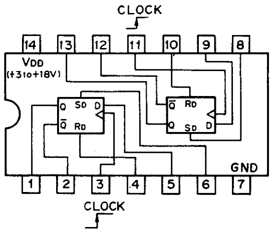
$Y = \overline{A \cdot B} = \overline{A} + \overline{B}$

A	B	Y
0	0	1
0	1	1
1	0	1
1	1	0

0: LOW LEVEL
1: HIGH LEVEL

MC14013BF (MOTOROLA) FLAT PACKAGE

C-MOS D-TYPE FLIP-FLOP WITH DIRECT SET/RESET
- TOP VIEW -


CLOCK
14
13
12
11
10
9
8
VDD
(+3 to +18V)
Q
SD
D
Q̄
RD
Q̄
RD
Q
SD
D
GND
1
2
3
4
5
6
7
CLOCK

DIRECT R-S FLIP FLOP

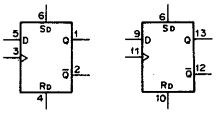
SD	RD	Q	$\overline{Q}$
0	0	Qn	$\overline{Qn}$
0	1	0	1
1	0	1	0
1	1	1	1

D-TYPE FLIP FLOP

CKn	CKn+1
D	Q
0	0
1	1

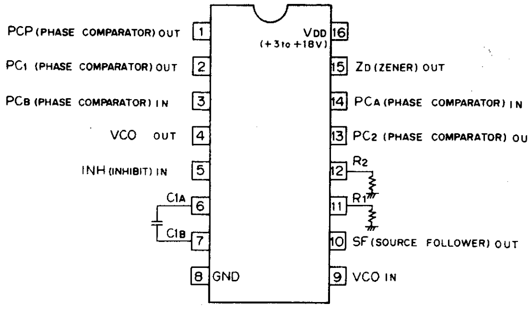
0; LOW LEVEL
1; HIGH LEVEL

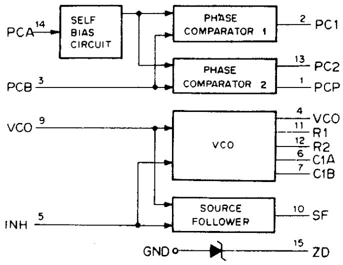
CLOCK CK;
CKn; BEFORE CLOCK
CKn+1; AFTER CLOCK


6
SD
5 D
3
Q 1
Q̄ 2
RD
4
6
SD
9 D
11
Q 13
Q̄ 12
RD
10

MC14046BF (MOTOROLA) FLAT PACKAGE

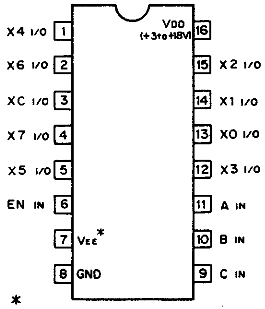
C-MOS PHASE LOCKED LOOP
- TOP VIEW -

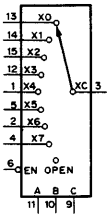

PCP (PHASE COMPARATOR) OUT 1
PC1 (PHASE COMPARATOR) OUT 2
PCB (PHASE COMPARATOR) IN 3
VCO OUT 4
INH (INHIBIT) IN 5
C1A 6
C1B 7
8 GND
VDD 16
(+3 to +18V)
15 ZD (ZENER) OUT
14 PCA (PHASE COMPARATOR) IN
13 PC2 (PHASE COMPARATOR) OUT
12 R2
11 R1
10 SF (SOURCE FOLLOWER) OUT
9 VCO IN


PCA 14
SELF BIAS CIRCUIT
PHASE COMPARATOR 1
2 PC1
PCB 3
PHASE COMPARATOR 2
13 PC2
1 PCP
VCO 9
VCO
4 VCO
11 R1
12 R2
6 C1A
7 C1B
INH 5
SOURCE FOLLOWER
10 SF
GND
15 ZD

MC14051BF (MOTOROLA) FLAT PACKAGE

C-MOS 8-CHANNEL ANALOG MULTIPLEXER/DEMUL TIPLEXER
- TOP VIEW -


X4 I/O 1
X6 I/O 2
XC I/O 3
X7 I/O 4
X5 I/O 5
EN IN 6
7 VEE*
8 GND
VDD (+3to+18V) 16
15 X2 I/O
14 X1 I/O
13 X0 I/O
12 X3 I/O
11 A IN
10 B IN
9 C IN


13 X0
14 X1
15 X2
12 X3
1 X4
5 X5
2 X6
4 X7
6 EN OPEN
XC 3
A B C
11 10 9

CONTROL INPUTS				SELECTED CHANNEL
EN	SELECT			
	C	B	A	
0	0	0	0	X0
0	0	0	1	X1
0	0	1	0	X2
0	0	1	1	X3
0	1	0	0	X4
0	1	0	1	X5
0	1	1	0	X6
0	1	1	1	X7
1	X	X	X	OPEN

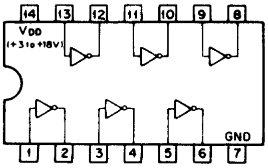
0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE

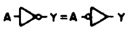
X0 to X7; ANALOG INPUTS/OUTPUTS
XC; COMMON INPUT/OUTPUT
A,B,C; CHANNEL SELECT INPUT
EN; ENABLE INPUT

*
V_{EE} ; $V_{DD}-V_{EE}$ = +3 to +18V

MC14069UBF (MOTOROLA) FLAT PACKAGE

C-MOS INVERTER
- TOP VIEW -


14 13 12 11 10 9 8
VDD (+3to+18V)
GND
1 2 3 4 5 6 7



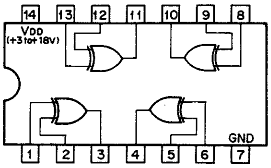
$Y = \overline{A}$

A	Y
0	1
1	0

0 ; LOW LEVEL
1 ; HIGH LEVEL

MC14070BF (MOTOROLA) FLAT PACKAGE

C-MOS EXCLUSIVE OR GATE
- TOP VIEW -


14 13 12 11 10 9 8
VDD (+3to+18V)
GND
1 2 3 4 5 6 7

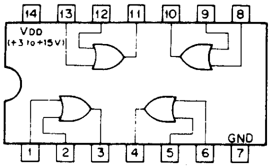
$Y = \overline{A}\cdot B + A\cdot\overline{B}$

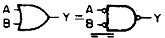
A	B	Y
0	0	0
0	1	1
1	0	1
1	1	0

0; LOW LEVEL
1; HIGH LEVEL

MC14071BF (MOTOROLA) FLAT PACKAGE

C-MOS 2-INPUT OR GATE
- TOP VIEW -


14 13 12 11 10 9 8
VDD (+3 to +15V)
GND
1 2 3 4 5 6 7



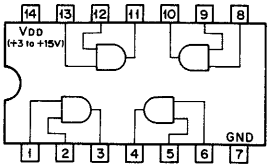
$Y = A + B = \overline{\overline{A}\cdot\overline{B}}$

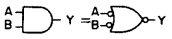
A	B	Y
0	0	0
0	1	1
1	0	1
1	1	1

0 ; LOW LEVEL
1 ; HIGH LEVEL

MC14081BF (MOTOROLA) FLAT PACKAGE

C-MOS 2-INPUT AND GATE
- TOP VIEW -


14 13 12 11 10 9 8
VDD (+3 to +15V)
GND
1 2 3 4 5 6 7



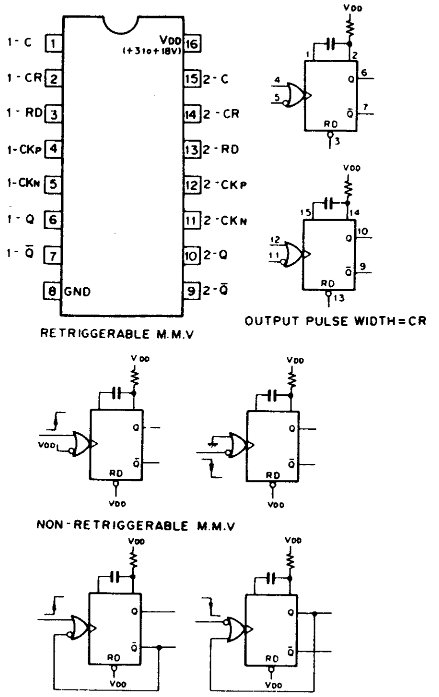
$Y = A\cdot B = \overline{\overline{A} + \overline{B}}$

A	B	Y
0	0	0
0	1	0
1	0	0
1	1	1

0;LOW LEVEL
1;HIGH LEVEL

MC14538BF (MOTOROLA) FLAT PACKAGE

C-MOS DUAL RETRIGGERABLE/NON-RETRIGGERABLE MONOSTABLE MULTIVIBRATOR
- TOP VIEW -


1 - C 1
1 - CR 2
1 - RD 3
1-CKP 4
1-CKN 5
1 - Q 6
1 - Q̄ 7
8 GND
VDD (+3to+18V) 16
15 2 - C
14 2 - CR
13 2 - RD
12 2 - CKP
11 2 - CKN
10 2 - Q
9 2 - Q̄
VDD
1
2
4
5
6
7
Q
Q̄
RD
3
VDD
15
14
12
11
10
9
Q
Q̄
RD
13
VDD
Q
Q̄
RD

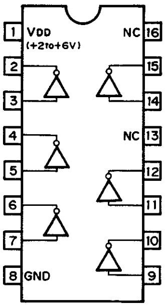
RETRIGGERABLE M.M.V

OUTPUT PULSE WIDTH=CR

NON-RETRIGGERABLE M.M.V

MC74HC4049F (MOTOROLA) FLAT PACKAGE

C-MOS HEX BUFFER/CONVERTER (INVERTING)
- TOP VIEW -


1 VDD (+2to+6V)
2
3
4
5
6
7
8 GND
NC 16
15
14
NC 13
12
11
10
9

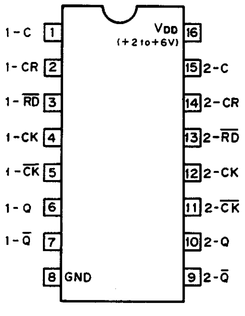
$Y = \overline{A}$

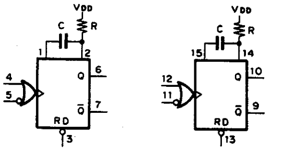
A	Y
0	1
1	0

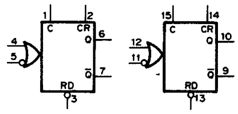
0 ; LOW LEVEL
1 ; HIGH LEVEL

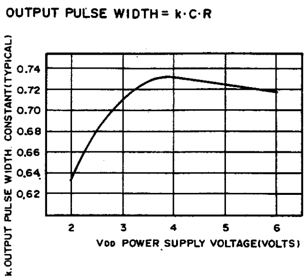
MC74HC4538AF (MOTOROLA) FLAT PACKAGE
TC74HC4538AF (TOSHIBA) FLAT PACKAGE

C-MOS DUAL RETRIGGERABLE/NON-RETRIGGERABLE MONOSTABLE MULTIVIBRATOR
- TOP VIEW -


1-C 1
1-CR 2
1-RD 3
1-CK 4
1-CK 5
1-Q 6
1-Q 7
8 GND
VDD (+2 to +6V) 16
15 2-C
14 2-CR
13 2-RD
12 2-CK
11 2-CK
10 2-Q
9 2-Q

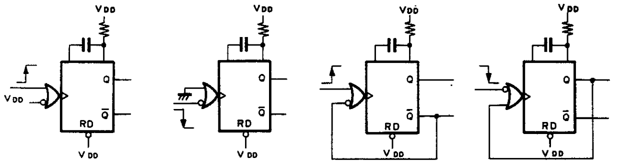

VDD
C
R
1
2
4
5
Q
Q
6
7
RD
3
15
14
12
11
10
9
13


1
2
C
CR
Q
Q
6
7
4
5
RD
3
15
14
12
11
10
9
13



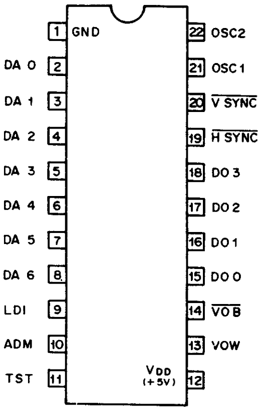
RETRIGGERABLE M.M.V

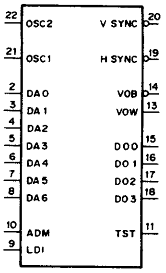
NON-RETRIGGERABLE M.M.V


VDD
VDD
Q
Q
RD
VDD

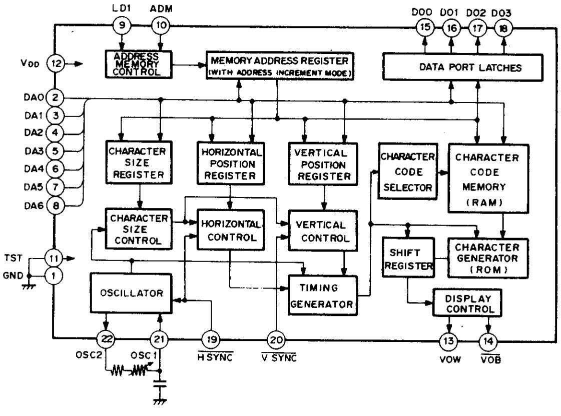
MN1237AD (MATSUSHITA)

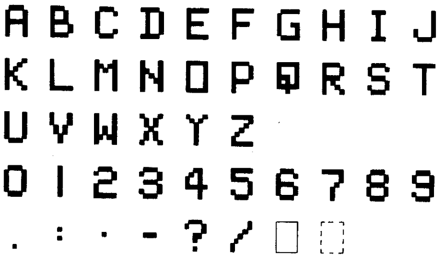
C-MOS INDICATES DATA OF 60 CHARACTERS CRT INTERFACE
- TOP VIEW -


1 GND
DA 0 2
DA 1 3
DA 2 4
DA 3 5
DA 4 6
DA 5 7
DA 6 8
LDI 9
ADM 10
TST 11
VDD (+5V) 12
22 OSC2
21 OSC1
20 V SYNC
19 H SYNC
18 DO 3
17 DO 2
16 DO 1
15 DO 0
14 VOB
13 VOW


22 OSC2
21 OSC1
2 DA0
3 DA1
4 DA2
5 DA3
6 DA4
7 DA5
8 DA6
10 ADM
9 LDI
V SYNC 20
H SYNC 19
VOB 14
VOW 13
DO0 15
DO1 16
DO2 17
DO3 18
TST 11

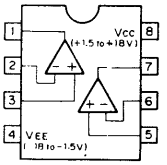
ADM	; ADDRESS MODE SELECT IN
DAO～DA6	; DATA BUS INPUT
DOO～DO3	; GENERAL OUTPUT
H SYNC	; H SYNC INPUT
LDI	; STROBE PULSE INPUT
OSC1,2	; OSC
TST	; TEST
VOB	; BACKGROUND OUTPUT
VOW	; CHARACTERS OUTPUT
V SYNC	; V SYNC INPUT


LD1
ADM
DO0 DO1 DO2 DO3
VDD
ADDRESS MEMORY CONTROL
MEMORY ADDRESS REGISTER (WITH ADDRESS INCREMENT MODE)
DATA PORT LATCHES
DA0
DA1
DA2
DA3
DA4
DA5
DA6
CHARACTER SIZE REGISTER
HORIZONTAL POSITION REGISTER
VERTICAL POSITION REGISTER
CHARACTER CODE SELECTOR
CHARACTER CODE MEMORY (RAM)
CHARACTER SIZE CONTROL
HORIZONTAL CONTROL
VERTICAL CONTROL
SHIFT REGISTER
CHARACTER GENERATOR (ROM)
TST
GND
OSCILLATOR
TIMING GENERATOR
DISPLAY CONTROL
OSC2
OSC1
H SYNC
V SYNC
VOW
VOB


A B C D E F G H I J
K L M N O P Q R S T
U V W X Y Z
0 1 2 3 4 5 6 7 8 9
. : · - ? /

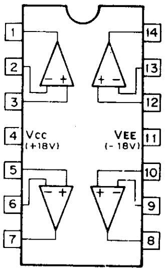
NJM062M (JRC) FLAT PACKAGE
TL062CPS (TI) FLAT PACKAGE

OPERATIONAL AMPLIFIER
(JFET-INPUT)
- TOP VIEW -


1
2
3
4 VEE (-18 to -1.5V)
Vcc (+1.5 to +18V) 8
7
6
5

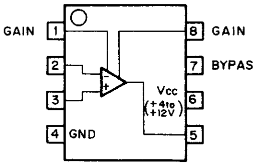
NJM064M (JRC) FLAT PACKAGE
TL064CNS (TI) FLAT PACKAGE

OPERATIONAL AMPLIFIER
(JFET-INPUT)
- TOP VIEW -


1
2
3
4 Vcc (+18V)
5
6
7
14
13
12
VEE (-18V) 11
10
9
8

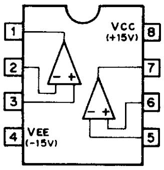
NJM386M (JRC) FLAT PACKAGE

AUDIO POWER AMPLIFIER
- TOP VIEW -


GAIN 1
2
3
4 GND
8 GAIN
7 BYPASS
Vcc (+4 to +12V) 6
5

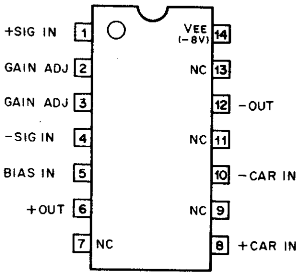
NJM4559M (JRC) FLAT PACKAGE

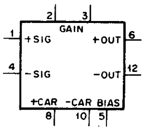
OPERATIONAL AMPLIFIER
- TOP VIEW -


1
2
3
4 VEE (-15V)
VCC (+15V) 8
7
6
5

RC1496M (RAYTHEON) FLAT PACKAGE

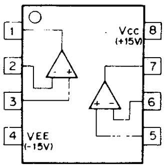
BALANCED MODULATOR/DEMODULATOR
- TOP VIEW -


+SIG IN 1
GAIN ADJ 2
GAIN ADJ 3
-SIG IN 4
BIAS IN 5
+OUT 6
7 NC
VEE (-8V) 14
NC 13
12 -OUT
NC 11
10 -CAR IN
NC 9
8 +CAR IN


2
3
GAIN
1 +SIG
+OUT 6
4 -SIG
-OUT 12
+CAR -CAR BIAS
8
10
5

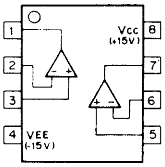
RC2041MD (RAYTHEON) FLAT PACKAGE

OPERATIONAL AMPLIFIER
- TOP VIEW -


Vcc (+15V)
VEE (-15V)
1
2
3
4
5
6
7
8

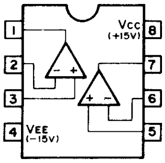
RC2043MD (RAYTHEON) FLAT PACKAGE

OPERATIONAL AMPLIFIER
- TOP VIEW -


Vcc (+15V)
VEE (-15V)
1
2
3
4
5
6
7
8

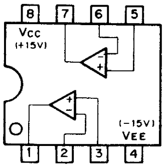
RC4556MA (RAYTHEON) FLAT PACKAGE

OPERATIONAL AMPLIFIER
(WIDE BAND DECOMPENSATED)
- TOP VIEW -


Vcc (+15V)
VEE (-15V)
1
2
3
4
5
6
7
8

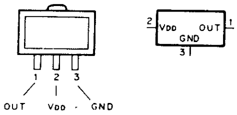
RC4558M (RAYTHEON) FLAT PACKAGE
µPC4558G2 (NEC) FLAT PACKAGE

OPERATIONAL AMPLIFIER
- TOP VIEW -


Vcc (+15V)
(-15V) VEE
8
7
6
5
1
2
3
4

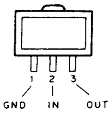
S-8054HN-CB (SEIKO)

+6V VOLTAGE DETECTOR WITH N-CHANNEL OPEN DRAIN OUTPUT
- TOP VIEW -

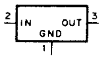

1 2 3
OUT VDD GND
2 VDD OUT 1
GND
3

S-81230AG-RB (SEIKO) FLAT PACKAGE

THREE TERMINAL POSITIVE VOLTAGE REGULATOR
- TOP VIEW -

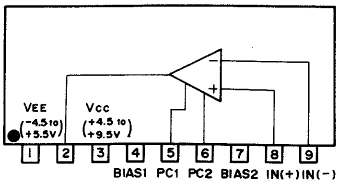

1 2 3
GND IN OUT

OUTPUT VOLTAGE	S-812????-??
+2.5V	S-81225AG-RH
+3.0V	S-81230AG-RB
+5.0V	S-81250HG-RD


2 IN
OUT 3
GND
1

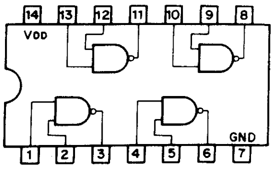
SBX1588 (SONY)

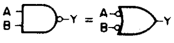
VIDEO AMPLIFIER
- SIDE VIEW -


VEE (-4.5 to +5.5V)
Vcc (+4.5 to +9.5V)
1
2
3
4
5
6
7
8
9
BIAS1 PC1 PC2 BIAS2 IN(+) IN(-)

SN74HC00ANS (TI) FLAT PACKAGE

C-MOS QUAD 2-INPUT NAND GATES
- TOP VIEW -


14 13 12 11 10 9 8
VDD
GND
1 2 3 4 5 6 7



$Y = \overline{A \cdot B} = \overline{A} + \overline{B}$

A	B	Y
0	0	1
0	1	1
1	0	1
1	1	0

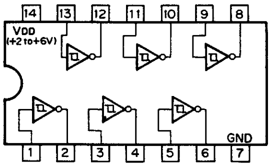
0; LOW LEVEL
1; HIGH LEVEL

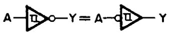
NOTE :

TYPE	VDD
TC74AC00 TYPE	+2 to +5.5V
MC74HCT00N	+5V
74ACT00 TYPE	+4.5 to +5.5V
OTHER TYPES	+2 to +6V

SN74HC14ANS (TI) FLAT PACKAGE

C-MOS SCHMITT TRIGGER INVERTER
- TOP VIEW -

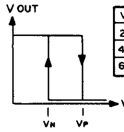

14 13 12 11 10 9 8
VDD (+2 to +6V)
GND
1 2 3 4 5 6 7



$Y = \overline{A}$

A	Y
0	1
1	0

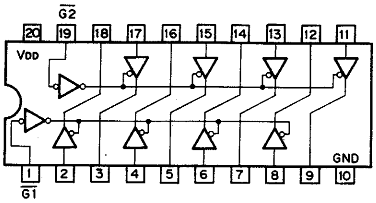
0; LOW LEVEL
1; HIGH LEVEL

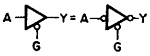


VDD	VN	VP
2.0V	0.75V	1.25V
4.5V	1.9V	2.7V
6.0V	2.6V	3.6V

SN74HC244ANS (TI) FLAT PACKAGE

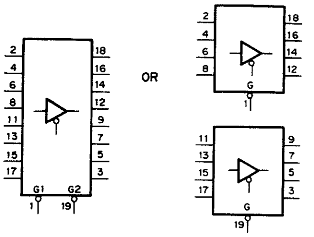
C-MOS BUS BUFFER WITH 3-STATE OUTPUTS
- TOP VIEW -


G2
20 19 18 17 16 15 14 13 12 11
VDD
GND
1 2 3 4 5 6 7 8 9 10
G1



G	A	Y
0	0	0
0	1	1
1	X	HI-Z

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE
HI-Z; HIGH IMPEDANCE

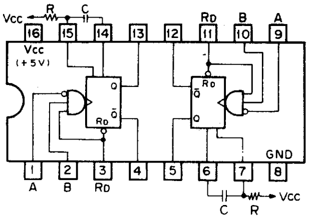

2
4
6
8
11
13
15
17
18
16
14
12
9
7
5
3
G1
G2
1
19
OR
G
G

NOTE :

TYPE	VDD
AC HC 40H	+2 to +6V
ACT HCT	+5V

SN74LS123NS (TI) FLAT PACKAGE

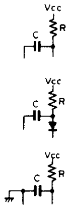
TTL RETRIGGERABLE MONOSTABLE MULTIVIBRATOR WITH DIRECT RESET
- TOP VIEW -


Vcc
R
C
RD
B
A
16 15 14 13 12 11 10 9
Vcc (+5V)
Q
Q̄
RD
GND
1 2 3 4 5 6 7 8
A B RD
C R
Vcc

INPUTS			OUTPUTS	
RD	A	B	Q	Q̄
0	X	X	0	1
X	1	X	0	1
X	X	0	0	1
1	0	↑	⊓	⊔
1	↓	1	⊓	⊔
↑	0	1	⊓	⊔

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE

OUTPUT PULSE WIDTH


Vcc
C
R
Vcc
C
R
Vcc
C
R

'123 ; $T_W = 0.28 \left(1 + \frac{700}{R}\right) CR$

'L123; $T_W = 0.33 \left(1 + \frac{700}{R}\right) CR$

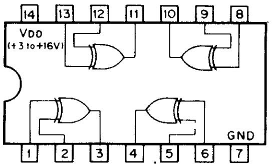
'123 , $T_W = 0.25 \left(1 + \frac{700}{R}\right) CR$

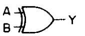
'L123; $T_W = 0.29 \left(1 + \frac{700}{R}\right) CR$

'LS123; $T_W = 0.45 CR$

TC4030BFHB (TOSHIBA) FLAT PACKAGE

C-MOS EXCLUSIVE OR GATE
- TOP VIEW -


14 13 12 11 10 9 8
VDD (+3 to +16V)
GND
1 2 3 4 5 6 7



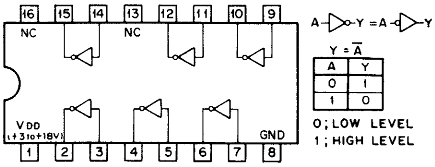
$Y = \overline{A} \cdot B + A \cdot \overline{B}$

A	B	Y
0	0	0
0	1	1
1	0	1
1	1	0

0: LOW LEVEL
1: HIGH LEVEL

TC4049BF (TOSHIBA) FLAT PACKAGE

C-MOS INVERTING TYPE BUFFER/CONVERTER
- TOP VIEW -


NC
NC
VDD
(+3 to +18V)
GND
A
Y
A
Y

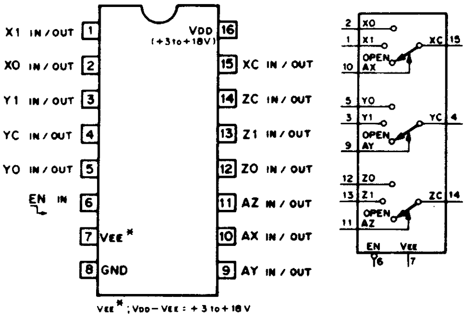
Y = $\overline{A}$

A	Y
0	1
1	0

0; LOW LEVEL
1; HIGH LEVEL

TC4053BFHB (TOSHIBA) FLAT PACKAGE
TC74HC4053AF

C-MOS 2-CHANNEL MULTIPLEXER/DEMULTIPLEXER
- TOP VIEW -


X1 IN / OUT
X0 IN / OUT
Y1 IN / OUT
YC IN / OUT
Y0 IN / OUT
EN IN
VEE*
GND
VDD (+3 to +18V)
XC IN / OUT
ZC IN / OUT
Z1 IN / OUT
Z0 IN / OUT
AZ IN / OUT
AX IN / OUT
AY IN / OUT
X0
X1
XC
OPEN
AX
Y0
Y1
YC
OPEN
AY
Z0
Z1
ZC
OPEN
AZ
EN
VEE

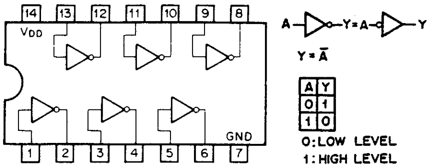
VEE*; VDD − VEE : + 3 to + 18 V

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE.

CONT. INPUTS		ON CHANNEL
EN	A (X,Y,Z,)	
0	0	0
0	1	1
1	X	OPEN

SN74HCU04ANS (TI) FLAT PACKAGE

C-MOS INVERTER
- TOP VIEW -


VDD
GND
A
Y
A
Y

Y = $\overline{A}$

A	Y
0	1
1	0

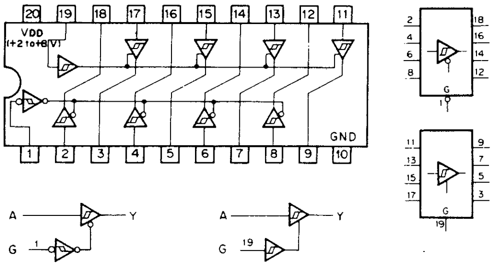
0: LOW LEVEL
1: HIGH LEVEL

NOTE :

TYPE	VDD
74HCT04 TYPE	+5V
TC74AC04 TYPE	+2 to +5.5V
74ACT04 TYPE	+4.5 to +5.5V
OTHER TYPES	+2 to +6V

TC40H241F (TOSHIBA) FLAT PACKAGE

C-MOS 3-STATE SCHMITT TRIGGER BUFFER/LINE DRIVER
- TOP VIEW -


VDD
(+2 to +8V)
GND
G
G
A
Y
G
1
A
Y
G
19

G	A	Y
0	0	0
0	1	1
1	0	HI - Z
1	1	HI - Z

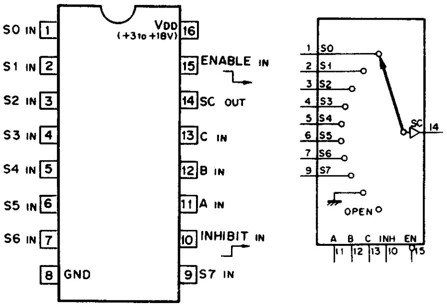
HI - Z ;
HIGH IMPEDANCE

G	A	Y
0	0	HI - Z
0	1	HI - Z
1	0	0
1	1	1

HI - Z ;
HIGH IMPEDANCE

TC4512BF (MOTOROLA) FLAT PACKAGE

C-MOS 8-CHANNEL DATA SELECTOR/MULTIPLEXER
- TOP VIEW -

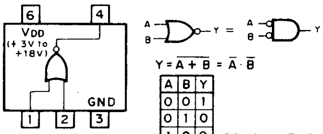

S0 IN
S1 IN
S2 IN
S3 IN
S4 IN
S5 IN
S6 IN
GND
VDD (+3 to +18V)
ENABLE IN
SC OUT
C IN
B IN
A IN
INHIBIT IN
S7 IN
S0
S1
S2
S3
S4
S5
S6
S7
SC
OPEN
A
B
C
INH
EN

CONTROL INPUTS					OUTPUT
EN	INH	C	B	A	SC
0	0	0	0	0	S0
0	0	0	0	1	S1
0	0	0	1	0	S2
0	0	0	1	1	S3
0	0	1	0	0	S4
0	0	1	0	1	S5
0	0	1	1	0	S6
0	0	1	1	1	S7
0	1	X	X	X	GND
1	X	X	X	X	OPEN

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE

TC4S01F (TOSHIBA) FLAT PACKAGE

C-MOS 2-INPUT NOR GATE
- TOP VIEW -


VDD
(+3V to +18V)
GND
A
B
Y
A
B
Y

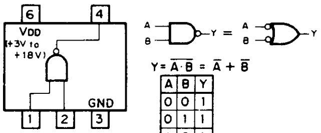
Y = $\overline{A+B} = \overline{A}\cdot\overline{B}$

A	B	Y
0	0	1
0	1	0
1	0	0
1	1	0

0; LOW LEVEL
1; HIGH LEVEL

TC4S11F (TOSHIBA) FLAT PACKAGE

C-MOS 2-INPUT HAND GATE
- TOP VIEW -


VDD
(+3V to +18V)
GND
A
B
Y
A
B
Y

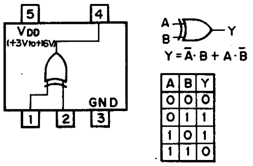
Y = $\overline{A\cdot B} = \overline{A} + \overline{B}$

A	B	Y
0	0	1
0	1	1
1	0	1
1	1	0

0; LOW LEVEL
1; HIGH LEVEL

TC4S30F (TOSHIBA) FLAT PACKAGE

C-MOS EXCLUSIVE OR GATE
- TOP VIEW -


VDD
(+3V to +18V)
GND
A
B
Y

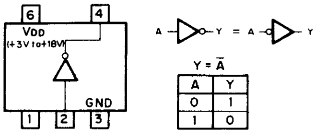
Y = $\overline{A}\cdot B + A\cdot\overline{B}$

A	B	Y
0	0	0
0	1	1
1	0	1
1	1	0

0; LOW LEVEL
1; HIGH LEVEL

TC4S69F (TOSHIBA) FLAT PACKAGE
TC4SU69F (TOSHIBA) FLAT PACKAGE

C-MOS INVERTER BUFFER
- TOP VIEW -


VDD
(+3V to +18V)
GND
A
Y
A
Y

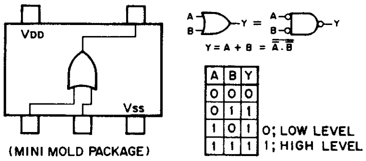
Y = $\overline{A}$

A	Y
0	1
1	0

0; LOW LEVEL
1; HIGH LEVEL

TC4S71F (TOSHIBA) FLAT PACKAGE

C-MOS 2-INPUT OR GATE
- TOP VIEW -

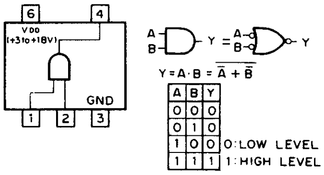

VDD
Vss
(MINI MOLD PACKAGE)
A
B
Y
Y = A + B = $\overline{\overline{A}\cdot\overline{B}}$

A	B	Y
0	0	0
0	1	1
1	0	1
1	1	1

0; LOW LEVEL
1; HIGH LEVEL

TC4S81F (TOSHIBA) FLAT PACKAGE

C-MOS 2-INPUT AND GATE
- TOP VIEW -

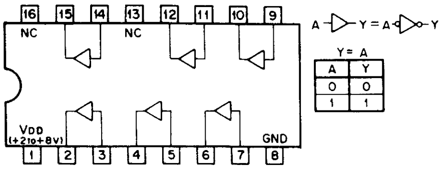

6
4
VDD
(+3 to +18V)
GND
1
2
3
A
B
Y
Y = A·B = $\overline{\overline{A}+\overline{B}}$

A	B	Y
0	0	0
0	1	0
1	0	0
1	1	1

0: LOW LEVEL
1: HIGH LEVEL

TC50H001F (TOSHIBA) FLAT PACKAGE

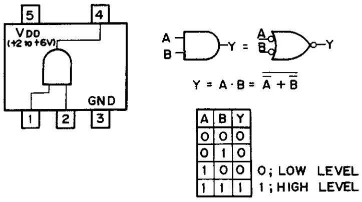
C-MOS NON-INVERTING TYPE BUFFER/CONVERTER
- TOP VIEW -


16
15
14
13
12
11
10
9
NC
NC
VDD
(+2 to +8V)
GND
1
2
3
4
5
6
7
8
A
Y
Y = A

A	Y
0	0
1	1

TC7S08F (TOSHIBA) FLAT PACKAGE

C-MOS 2-INPUT AND GATE
- TOP VIEW -

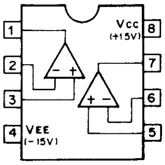

5
4
VDD
(+2 to +6V)
GND
1
2
3
A
B
Y
Y = A·B = $\overline{\overline{A}+\overline{B}}$

A	B	Y
0	0	0
0	1	0
1	0	0
1	1	1

0; LOW LEVEL
1; HIGH LEVEL

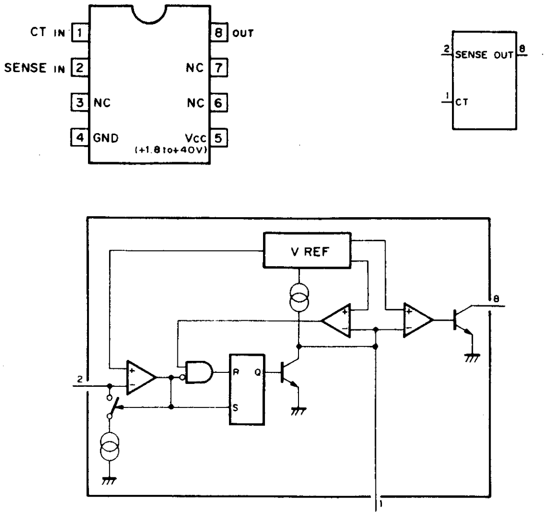
TL072CPS (TI) FLAT PACKAGE

OPERATIONAL AMPLIFIER
(LOW-NOISE, JFET-INPUT)
- TOP VIEW -


1
2
3
4
VEE
(-15V)
Vcc
(+15V)
8
7
6
5

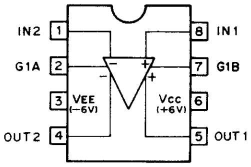
TL7700CPS (TI) FLAT PACKAGE

VARIABLE SUPPLY VOLTAGE SUPERVISOR
- TOP VIEW -


CT IN 1
SENSE IN 2
3 NC
4 GND
8 OUT
NC 7
NC 6
Vcc 5
(+1.8 to +40V)
2 SENSE OUT 8
1 CT
V REF
R
Q
S
2
8
1

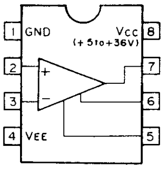
µPC1663G (NEC) FLAT PACKAGE

WIDEBAND VIDEO AMPLIFIER
- TOP VIEW -


IN2 1
G1A 2
3 VEE (-6V)
OUT2 4
8 IN1
7 G1B
Vcc (+6V) 6
5 OUT1

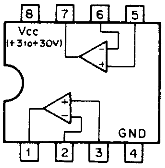
µPC311G2 (NEC) FLAT PACKAGE

VOLTAGE COMPARATOR
- TOP VIEW -


1 GND
2
3
4 VEE
Vcc (+5 to +36V) 8
7
6
5

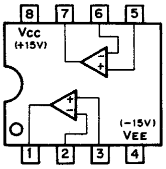
µPC358G2 (NEC) FLAT PACKAGE

DUAL OPERATIONAL AMPLIFIERS
- TOP VIEW -


8
7
6
5
Vcc
(+3 to +30V)
GND
1
2
3
4

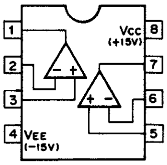
µPC4560G2 (NEC) FLAT PACKAGE

DUAL OPERATIONAL AMPLIFIER
- TOP VIEW -


8
7
6
5
Vcc
(+15V)
(-15V)
VEE
1
2
3
4

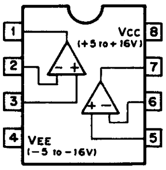
µPC4572G2 (NEC) FLAT PACKAGE

OPERATIONAL AMPLIFIER (WIDE BAND, LOW NOISE)
- TOP VIEW -


1
2
3
4
VEE
(−15V)
Vcc
(+15V)
8
7
6
5
−
+
+
−

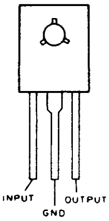
µPC812G2 (NEC) FLAT PACKAGE

OPERATIONAL AMPLIFIER (JFET-INPUT)
- TOP VIEW -

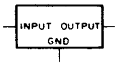

1
2
3
4
VEE
(−5 to −16V)
Vcc
(+5 to +16V)
8
7
6
5
−
+
+
−

µPC78N??H (NEC)

POSITIVE VOLTAGE REGULATOR
- FRONT VIEW -

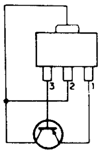

INPUT
GND
OUTPUT

OUTPUT VOLTAGE	µPC78N??H
+5V	µPC78N05H
+8V	µPC78N08H
+10V	µPC78N10H
+12V	µPC78N12H
+15V	µPC78N15H
+18V	µPC78N18H
+24V	µPC78N24H


INPUT
OUTPUT
GND

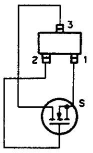
TRANSISTOR

TOP VIEW (SCALE 4/1)



2SA1463
2SB798

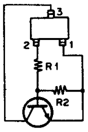
TOP VIEW (SCALE 2/1)



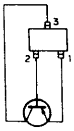
2SK620

DTC114EU (R1 = 10K, R2 = 10K)
DTC114YU (R1 = 10K, R2 = 47K)

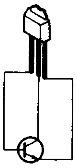
TOP VIEW (SCALE 4/1)



TOP VIEW (SCALE 4/1)

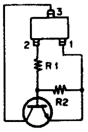


2SA1162
2SA1226
2SA1462
2SA1611
2SB624

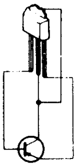


2SD1221

TOP VIEW (SCALE 4/1)

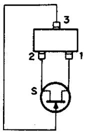


DTC144EU
(R1 = 47K, R2 = 47K)



2SB907

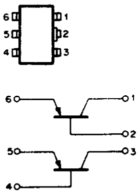
TOP VIEW (SCALE 4/1)



2SK209
2SK508
2SK94

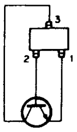
(SCALE 6/1)

TOP VIEW

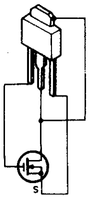

6
5
4
1
2
3
6
1
2
5
3
4

XN6435

TOP VIEW (SCALE 4/1)



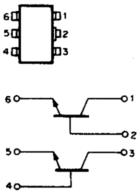
2SC1623
2SC2713
2SC2757
2SC3360
2SC4177
2SC4178
2SC4213
2SD1623
2SD596
NTM2369



2SK612

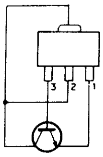
(SCALE 6/1)

TOP VIEW


6
5
4
1
2
3
6
1
2
5
3
4

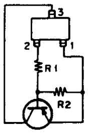
XN6534

TOP VIEW (SCALE 4/1)

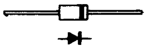


2SD1615A

TOP VIEW (SCALE 4/1)

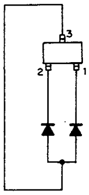


DTA114YK
(R1 = 10K, R2 = 47K)
DTA144EU



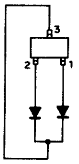
1S1555S
1SS119

(SCALE 4/1)
TOP VIEW



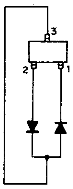
1S2835
1S2836

TOP VIEW (SCALE 4/1)

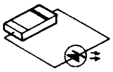


1S2837
1SS304
DAN202U
DAP202U
HSM88WK

TOP VIEW (SCALE 4/1)

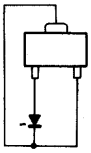


1SS226
DA204U
HSM88AS

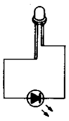


CL-150D-CD ; ORANGE
CL-150UR-CD ; RED

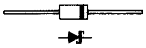
TOP VIEW (SCALE 4/1)



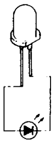
E10QS04



EBR3402S ; RED

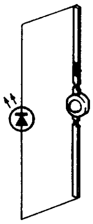


ERA81-004

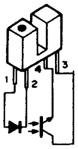


GL-5LR40 ; RED

(SCALE 2/1)

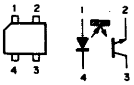


GL1HD11 ; RED

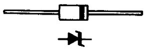


GP-1S54

- BOTTOM VIEW -

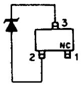


GP-2S07B
GP-2S09

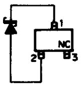


HZ?ALL
HZ?B?L
HZ?BLL
HZS?ALL
HZS??JB?
HZS??L
RD??ESB?
RD??FB?

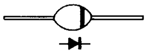
TOP VIEW (SCALE 4/1)



RC??M



SB01-05CP



U05E
V09C
V11?

SECTION 11
SCHEMATIC DIAGRAMS

回路図内において，REF. NOの近傍に下記記号が記載されていますが，これは生産時の部品データです。

In the schematic diagrams, the following marks are described near by reference number.
These are parts data at factory.

CAPACITOR(C)

AL AS	ELECTROLYTIC
TA	TANTALUM
CA CC CCS CM CS	CERAMIC
MPS PP PS PT	MYLAR
MD	DIPPED MICA
MS	MICA

RESISTOR(R)
VARIABLE RESISTOR(RV)

RC RD	CARBON
RF	FUSE
RN RS	METAL
RW	WIREWOUND

CIRCUIT FUNCTION OF THE SCHEMATIC DIAGRAMS

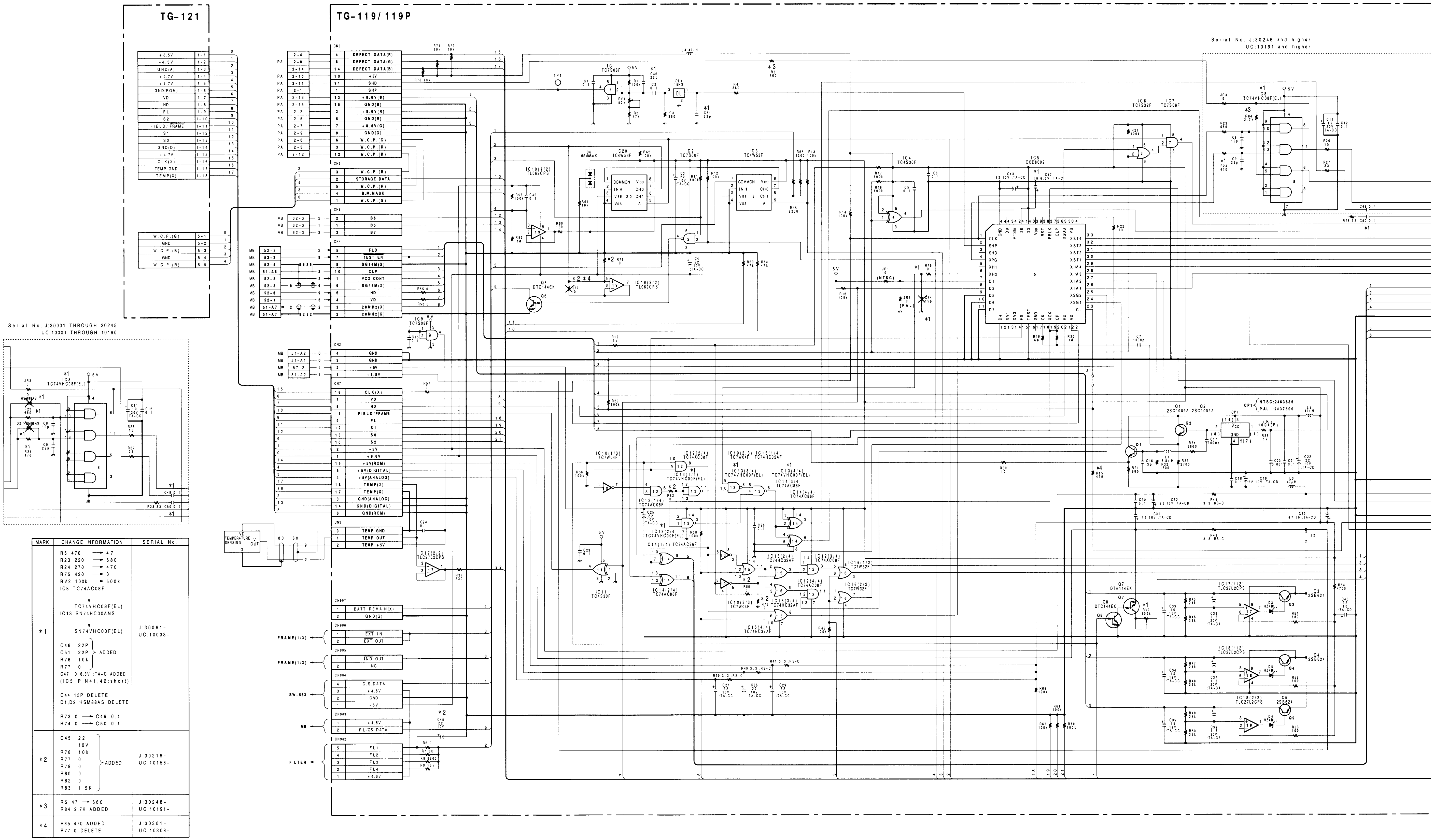
SYSTEM	CIRCUIT BOARD	CIRCUIT FUNCTION
CAMERA	CN-803	Connector PCB for BI Boards
	BI-29 BI-30 BI-31	CCD mount SERIAL No. J ;30001-30030 UC;10001-10027
	BI-69 BI-70 BI-71	CCD mount SERIAL No. J ;30031 and higher UC;10028 and higher
	TG-119	Timing Generator
	TG-120	Sub Timing Generator(1)
	TG-121	Sub Timing Generator(2)
	SW-563	Clear Scan Set
	PA-155	Pre-amp(Sample & Hold)
	DR-124	CCD Driver
	VA-104	Video Amp,Black Set,Total Gain Chage,Shading Compensator
	IE-30 IE-31	Image Enhancer Aperture
	PR-176 (J) PR-176U (UC) PR-177/ BP-020 PR-178/ BP-021	Gamma,Masking,Knee,Slope, W.Clip,Dynamic Contrast Control
	EN-79 (J) EN-79U (UC)	Y/R-Y/B-Y Signal Generator for VTR,Encoder, Color Bars Generator
	SG-152 SG-157	Sync Generator,Genlock for TC,Sub-regulator
	AT-49B	Auto white/black Function, VF Character Generator, System Controller, Audio Level Detector
	SW-220	SAVE-STBY,Color Bars ON/OFF, DCC ON/OFF, Memory A/B/Preset SW
	SW-357B	Auto White/Black SW VTR Start/Stop SW Shutter ON/OFF Select
	VR-77	Master Black VR
	IF-298AJ (J) IF-298A (UC)	26P Interface,Logic VF Marker Gen.
VIDEO	VDA-11	CTDM and C-Modulator
	AFM-6	Y-Modulator,AFM
	VP-24	Video Playback, Head Select Pulse Generator
AUDIO	AU-97	Audio REC/PB Processor
	TB-5	Terminal Board,Audio Confi PB
	FL-55	Audio Head AMP,Relay Board for TB and A/T Head
SERVO	SV-97A	Drum/Capstan Servo
SYSTEM CONTROL	SY-117C	System Control
	KY-124	Function Key Board
TIME CODE	TC-48A	Time Code Generator,Audio Level Control, Audio Monitor AMP,SW and Indicator for Audio and TC
	VR-70	Volume
POWER	PS-162(J) (J) PS-162 (UC)	Power Distributor
SENSOR	FE-4	Full Erase, Dew and End Sensor
	LD-21	Loading Motor Driver and END Sensor
	SR-40	Mechanical Position Sensor

SYSTEM	CIRCUIT BOARD	CIRCUIT FUNCTION
OTHERS	MB-317	Mother Board
	SW-291	Back Tally
	FL-45	Relay Board for MB and TC
	FL-46	Relay Board for MB and TC
	FL-53	Relay Board for TB and SR
	FL-57	Relay Board for PS and TC
	EX-148	Extension Board

SYSTEM	CIRCUIT BOARD	CIRCUIT FUNCTION
VIEW-FINDER	VF-50	Drive and Video Amp for Viewfinder,Peaking Signal Generator
	LP-64	REC LED
	LP-65	BATT/TALLY, VTR SAVE LED
	LP-66	Front Tally LED
	VR-149	Contrast,Bright,Peaking, Audio Level(CH-1) VR
	SW-562	Tally ON/OFF,Audio Level Indicator ON/OFF, Zebra/Marker ON/OFF SW
	CN-771	Connector for VF Cable

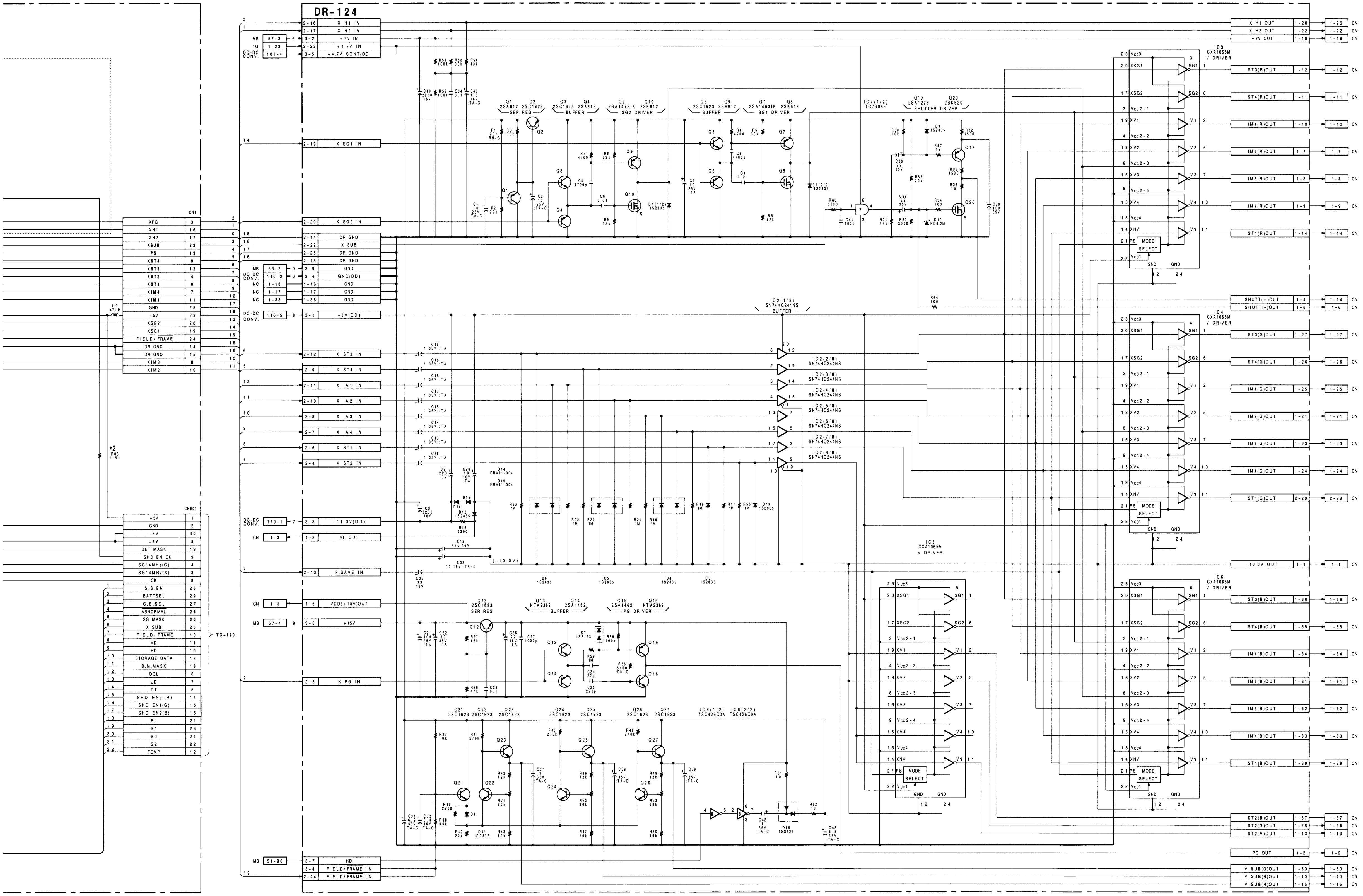
(Page 11-3 and 4 are missing.)

CCD BLOCK (1/2)
TG-121; SUB TIMING GENERATOR
TG-119; TIMING GENERATOR
DR-124; CCD DRIVER


TG-121
TG-119/119P
Serial No. J:30001 THROUGH 30245
UC:10001 THROUGH 10190
Serial No. J:30246 and higher
UC:10191 and higher
FRAME(1/3)
FRAME(1/3)
SW-563
MB
FILTER
1
2
3
4
5

MARK	CHANGE INFORMATION	SERIAL No.
*1	R5 470 → 47 R23 220 → 680 R24 270 → 470 R75 430 → 0 RV2 100k → 500k IC8 TC74AC08F ↓ TC74VHC08F(EL) IC13 SN74HC00ANS ↓ SN74VHC00F(EL) C46 22P, C51 22P, R76 10k, R77 0 } ADDED C47 10 6.3V :TA-C ADDED (IC5 PIN41,42:short) C44 15P DELETE D1,D2 HSM88AS DELETE R73 0 → C49 0.1 R74 0 → C50 0.1	J:30061- UC:10033-
*2	C45 22 10V, R76 10k, R77 0, R78 0, R80 0, R82 0, R83 1.5K } ADDED	J:30216- UC:10158-
*3	R5 47 → 560 R84 2.7K ADDED	J:30246- UC:10191-
*4	R85 470 ADDED R77 0 DELETE	J:30301- UC:10308-

A B C D E F G H


DR-124
TG-120
CN1
CN901
IC2(1/8) SN74HC244NS BUFFER
IC3 CXA1065M V DRIVER
IC4 CXA1065M V DRIVER
IC5 CXA1065M V DRIVER
IC6 CXA1065M V DRIVER
IC7(1/2) TC7S08F
IC8(1/2) IC8(2/2) TSC426COA TSC426COA
SER REG
BUFFER
SG2 DRIVER
SG1 DRIVER
SHUTTER DRIVER
PG DRIVER
X H1 IN
X H2 IN
+7V IN
+4.7V IN
+4.7V CONT(DD)
X SG1 IN
X SG2 IN
X ST3 IN
X ST4 IN
X IM1 IN
X IM2 IN
X IM3 IN
X IM4 IN
X ST1 IN
X ST2 IN
-11.0V(DD)
VL OUT
P SAVE IN
VDD(+15V)OUT
+15V
X PG IN
HD
FIELD/FRAME IN
X H1 OUT
X H2 OUT
+7V OUT
ST3(R)OUT
ST4(R)OUT
IM1(R)OUT
IM2(R)OUT
IM3(R)OUT
IM4(R)OUT
ST1(R)OUT
SHUTT(+)OUT
SHUTT(-)OUT
ST3(G)OUT
ST4(G)OUT
IM1(G)OUT
IM2(G)OUT
IM3(G)OUT
IM4(G)OUT
ST1(G)OUT
-10.0V OUT
ST3(B)OUT
ST4(B)OUT
IM1(B)OUT
IM2(B)OUT
IM3(B)OUT
IM4(B)OUT
ST1(B)OUT
ST2(B)OUT
ST2(G)OUT
ST2(R)OUT
PG OUT
V SUB(G)OUT
V SUB(B)OUT
V SUB(R)OUT
1
2
3
4
5
I
J
K
L
M
N
O
P

CCD BLOCK (1/2)

TG-119 BOARD

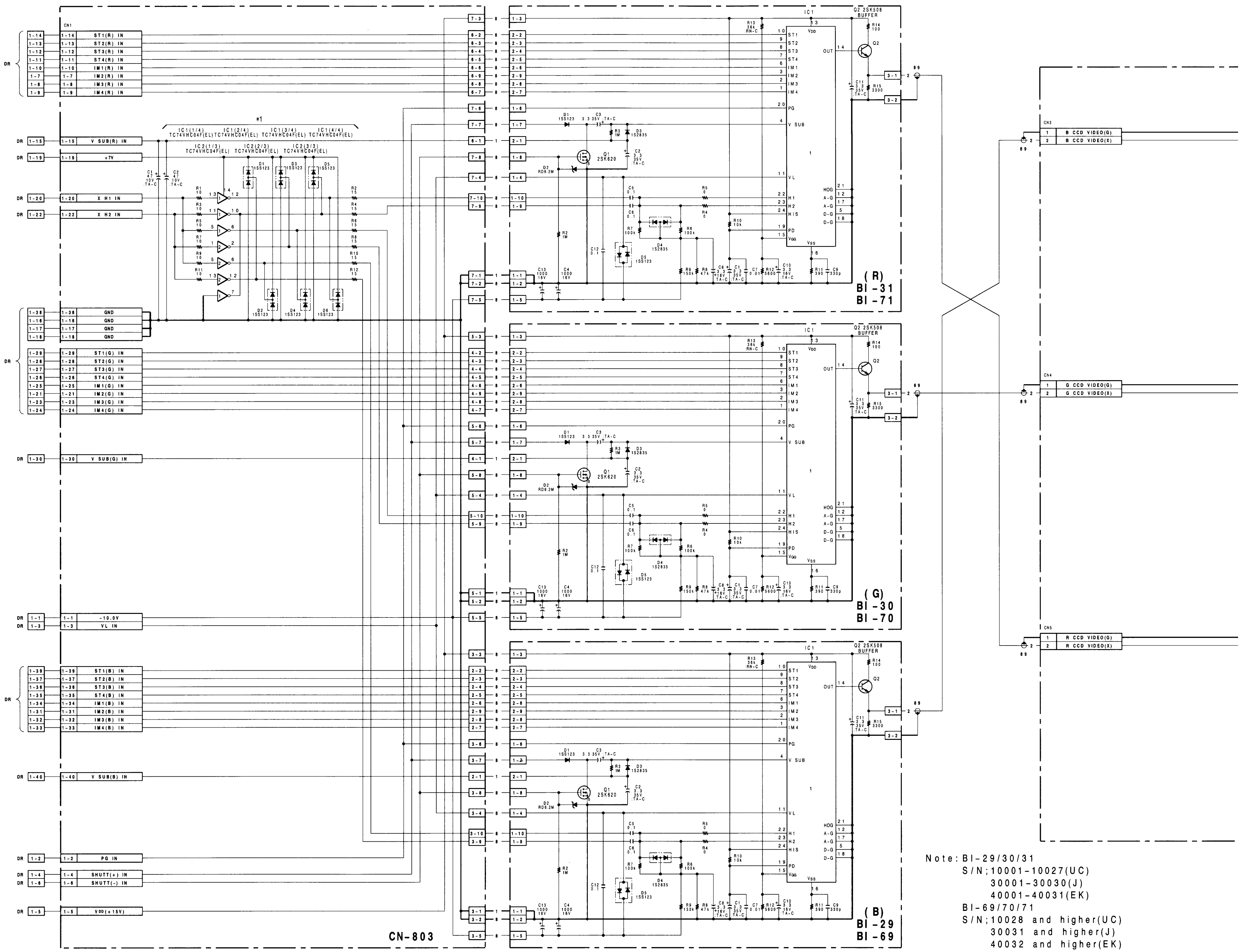
1-643-710-11, 12, 13

DR-124 BOARD

1-634-962-11
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-

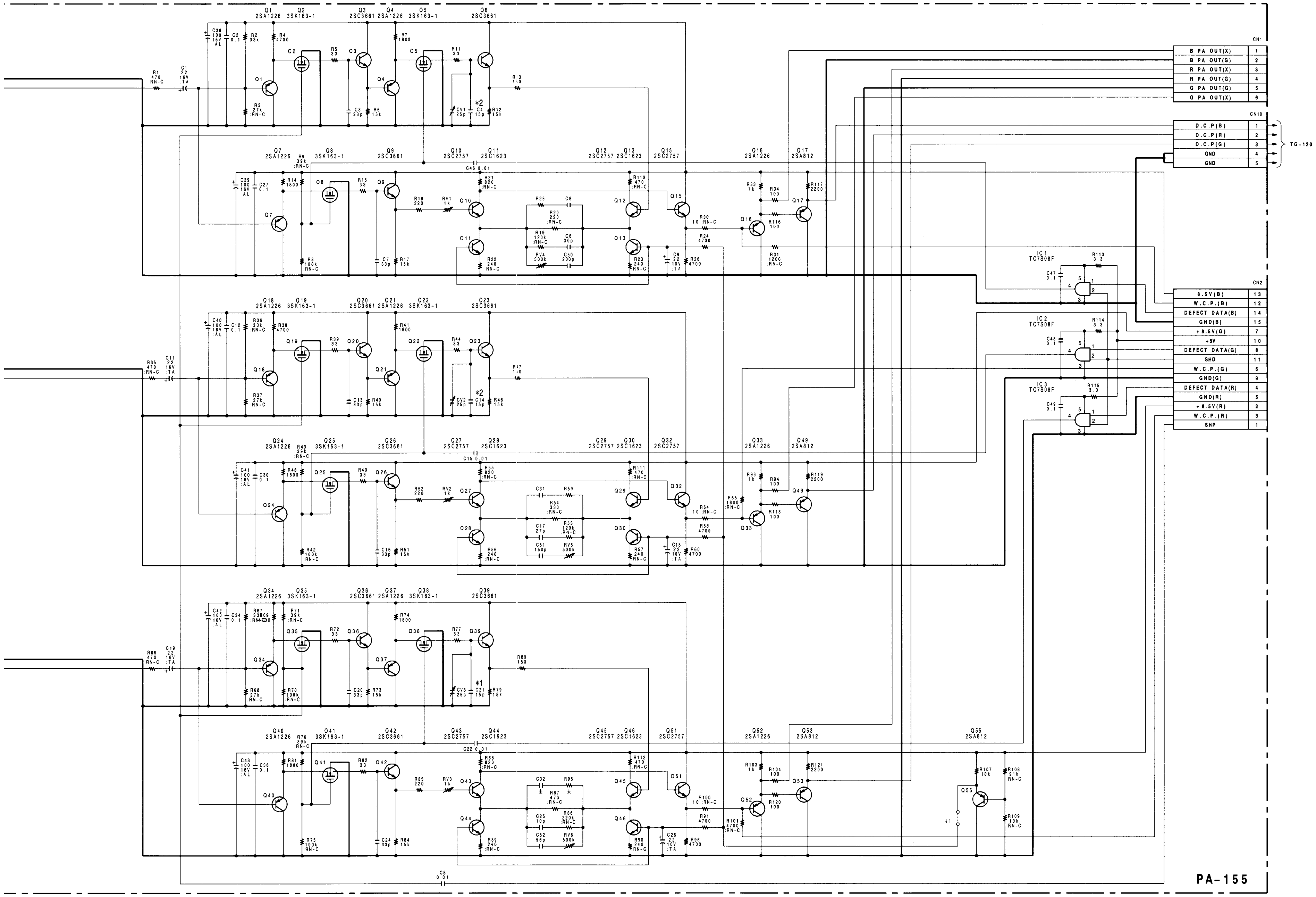
(Page 11-9 to 11 are missing.)

CCD BLOCK (2/2)
BI-69, BI-70, BI-71; CCD BIAS
CN-304; CONNECTOR
PA-155; CCD PREAMP


CN-803
(R) BI-31 BI-71
(G) BI-30 BI-70
(B) BI-29 BI-69
IC1
Q2 2SK508 BUFFER
B CCD VIDEO(G)
B CCD VIDEO(X)
G CCD VIDEO(G)
G CCD VIDEO(X)
R CCD VIDEO(G)
R CCD VIDEO(X)
ST1(R) IN
ST2(R) IN
ST3(R) IN
ST4(R) IN
IM1(R) IN
IM2(R) IN
IM3(R) IN
IM4(R) IN
V SUB(R) IN
+7V
X H1 IN
X H2 IN
GND
ST1(G) IN
ST2(G) IN
ST3(G) IN
ST4(G) IN
IM1(G) IN
IM2(G) IN
IM3(G) IN
IM4(G) IN
V SUB(G) IN
-10.0V
VL IN
ST1(B) IN
ST2(B) IN
ST3(B) IN
ST4(B) IN
IM1(B) IN
IM2(B) IN
IM3(B) IN
IM4(B) IN
V SUB(B) IN
PG IN
SHUTT(+) IN
SHUTT(-) IN
VDD(+15V)
IC1(1/4) TC74VHC04F(EL)
IC1(2/4) TC74VHC04F(EL)
IC1(3/4) TC74VHC04F(EL)
IC1(4/4) TC74VHC04F(EL)
IC2(1/3) TC74VHC04F(EL)
IC2(2/3) TC74VHC04F(EL)
IC2(3/3) TC74VHC04F(EL)
*1
Q1 2SK620

Note: BI-29/30/31
S/N; 10001-10027(UC)
30001-30030(J)
40001-40031(EK)
BI-69/70/71
S/N; 10028 and higher(UC)
30031 and higher(J)
40032 and higher(EK)

MARK	CHANGE INFORMATION	SERIAL No.
*1	IC1, IC2 HD74AC04P-R ↓ TC74VHCU04F(EL)	J:30061- UC:10033-


CN1
B PA OUT(X) 1
B PA OUT(G) 2
R PA OUT(X) 3
R PA OUT(G) 4
G PA OUT(G) 5
G PA OUT(X) 6
CN10
D.C.P(B) 1
D.C.P(R) 2
D.C.P(G) 3
GND 4
GND 5
TG-120
IC1 TC7S08F
IC2 TC7S08F
IC3 TC7S08F
R113 3.3
R114 3.3
R115 3.3
C47 0.1
C48 0.1
C49 0.1
CN2
8.5V(B) 13
W.C.P.(B) 12
DEFECT DATA(B) 14
GND(B) 15
+8.5V(G) 7
+5V 10
DEFECT DATA(G) 8
SHD 11
W.C.P.(G) 6
GND(G) 9
DEFECT DATA(R) 4
GND(R) 5
+8.5V(R) 2
W.C.P.(R) 3
SHP 1
Q1 2SA1226
Q2 3SK163-1
Q3 2SC3661
Q4 2SA1226
Q5 3SK163-1
Q6 2SC3661
Q7 2SA1226
Q8 3SK163-1
Q9 2SC3661
Q10 2SC2757
Q11 2SC1623
Q12 2SC2757
Q13 2SC1623
Q15 2SC2757
Q16 2SA1226
Q17 2SA812
Q55 2SA812
J1
PA-155

PA-155 BOARD
1-643-713-11, 12

BI-29 BOARD
1-630-554-12

BI-69 BOARD
1-644-491-11

BI-30 BOARD
1-630-555-11

BI-70 BOARD
1-644-492-11

BI-31 BOARD
1-630-556-11

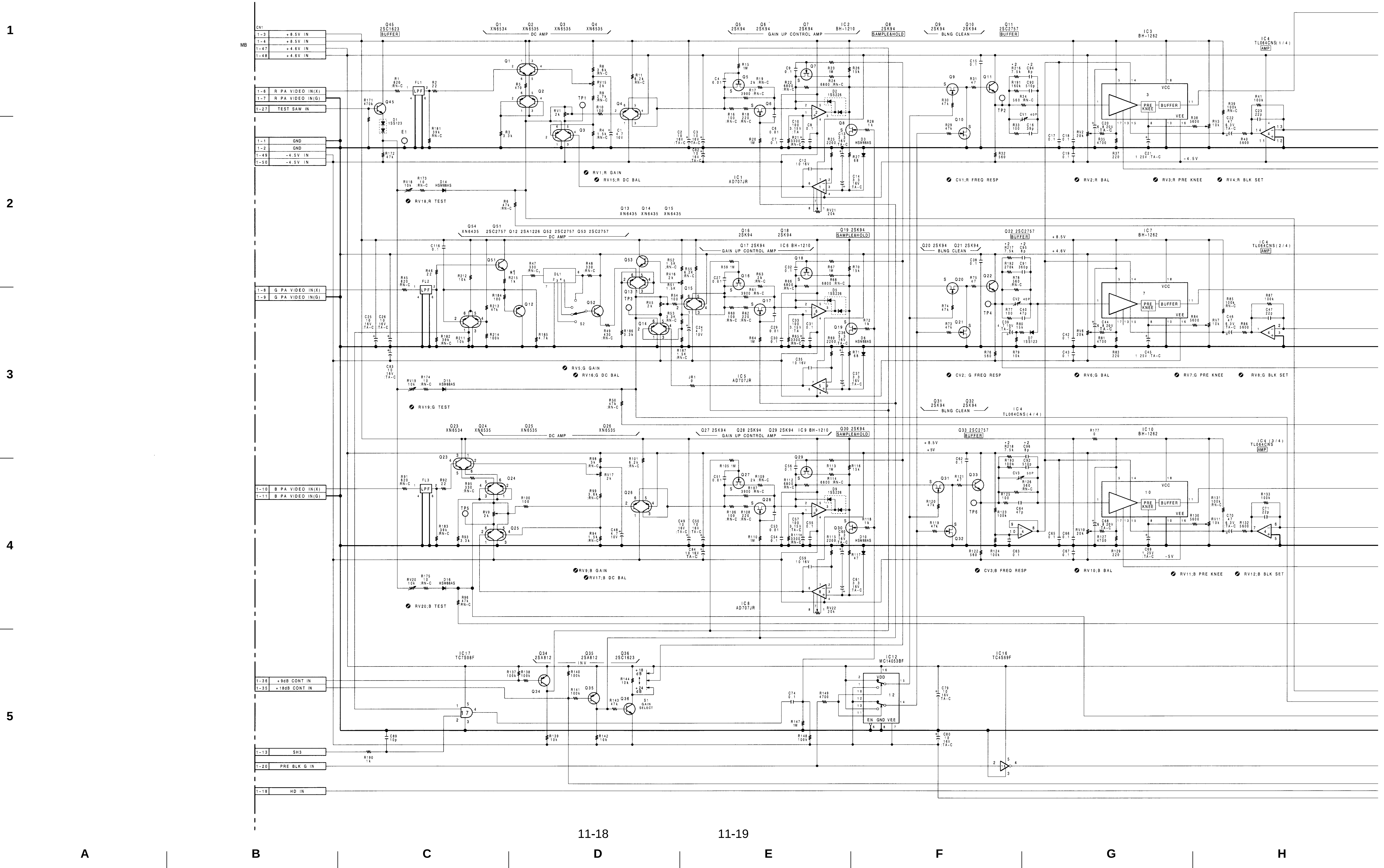
BI-71 BOARD
1-644-493-11

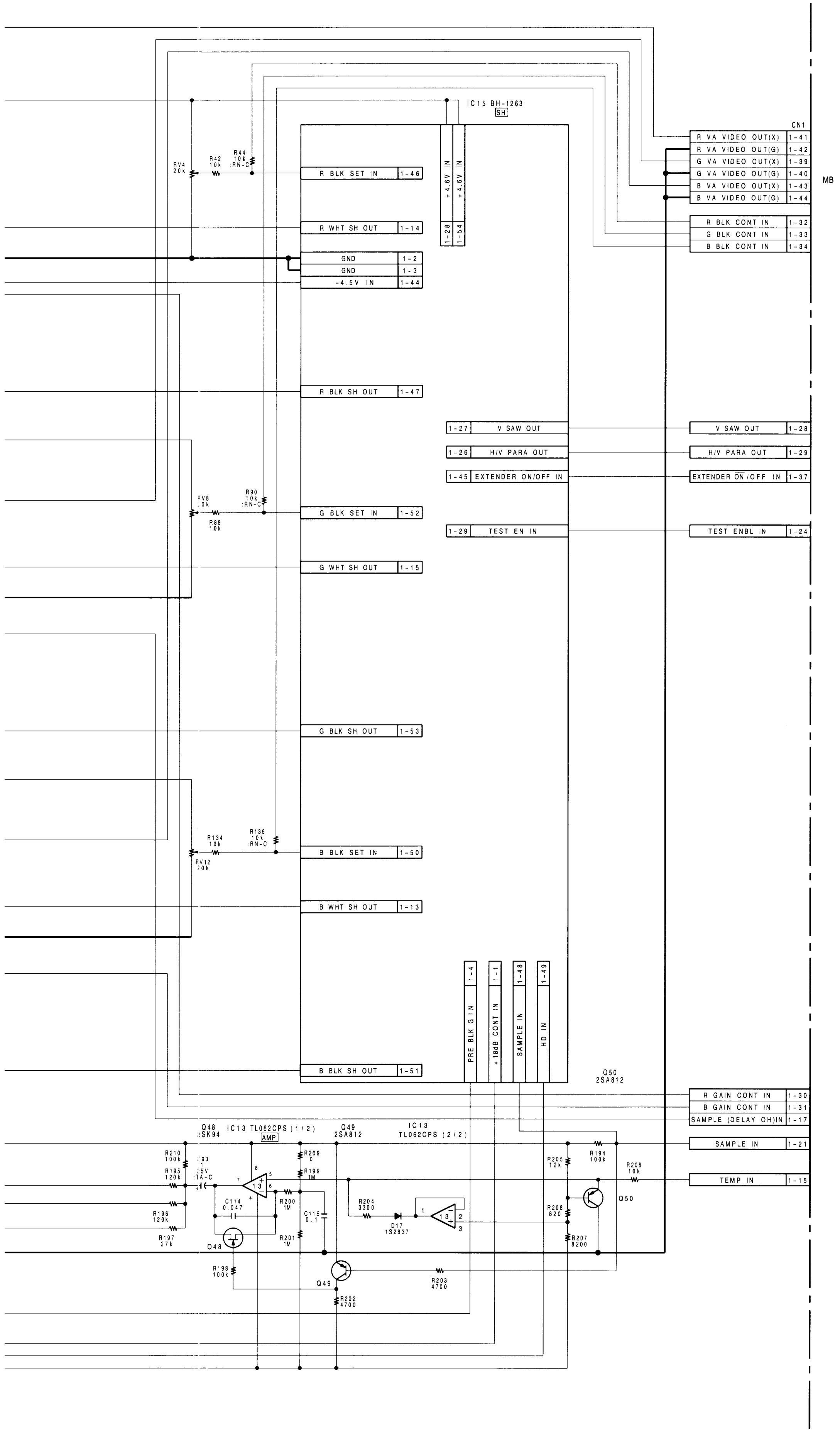
CN-803 BOARD
1-644-490-11
BVW-400A (UC) ;#10001-
BVW-400A (J) ;#30001-
BVW-400AP (EK) ;#40001-

MARK	CHANGE INFORMATION	SERIAL No.
*1	C21 22P → 15P	J:30061- UC:10033-
*2	C4,C14 22P → 15P	J:30091- UC:10063-

(Page 11-15 to 17 are missing.)

VA-104; VIDEO AMP, BLACK SET, SHADING COMPE


CN1
MB
1-3 +8.5V IN
1-4 +8.5V IN
1-47 +4.6V IN
1-48 +4.6V IN
1-6 R PA VIDEO IN(X)
1-7 R PA VIDEO IN(G)
1-27 TEST SAW IN
1-1 GND
1-2 GND
1-49 -4.5V IN
1-50 -4.5V IN
1-8 G PA VIDEO IN(X)
1-9 G PA VIDEO IN(G)
1-10 B PA VIDEO IN(X)
1-11 B PA VIDEO IN(G)
1-36 +9dB CONT IN
1-35 +18dB CONT IN
1-13 SH3
1-20 PRE BLK G IN
1-18 HD IN
Q45 2SC1623 BUFFER
Q1 XN6534 Q2 XN6535 Q3 XN6535 Q4 XN6535 DC AMP
Q5 2SK94 Q6 2SK94 Q7 2SK94 IC2 BH-1210 GAIN UP CONTROL AMP
Q8 2SK94 SAMPLE&HOLD
Q9 2SK94 Q10 2SK94 BLNG CLEAN
Q11 2SC2757 BUFFER
IC3 BH-1262
IC4 TL064CNS(1/4) AMP
IC1 AD707JR
RV1;R GAIN
RV15;R DC BAL
RV18;R TEST
CV1;R FREQ RESP
RV2;R BAL
RV3;R PRE KNEE
RV4;R BLK SET
Q13 XN6435 Q14 XN6435 Q15 XN6435
Q54 XN6435 Q51 2SC2757 Q12 2SA1226 Q52 2SC2757 Q53 2SC2757 DC AMP
Q16 2SK94 Q18 2SK94 Q19 2SK94 SAMPLE&HOLD
Q17 2SK94 IC6 BH-1210 GAIN UP CONTROL AMP
Q22 2SC2757 BUFFER
Q20 2SK94 Q21 2SK94 BLNG CLEAN
IC7 BH-1262
IC4 TL064CNS(2/4) AMP
IC5 AD707JR
RV5;G GAIN
RV16;G DC BAL
RV19;G TEST
CV2;G FREQ RESP
RV6;G BAL
RV7;G PRE KNEE
RV8;G BLK SET
Q31 2SK94 Q32 2SK94 BLNG CLEAN
IC4 TL064CNS(4/4)
Q23 XN6534 Q24 XN6535 Q25 XN6535 Q26 XN6535 DC AMP
Q27 2SK94 Q28 2SK94 Q29 2SK94 IC9 BH-1210 GAIN UP CONTROL AMP
Q30 2SK94 SAMPLE&HOLD
Q33 2SC2757 BUFFER
IC10 BH-1262
IC4 (3/4) TL064CNS AMP
IC8 AD707JR
RV9;B GAIN
RV17;B DC BAL
RV20;B TEST
CV3;B FREQ RESP
RV10;B BAL
RV11;B PRE KNEE
RV12;B BLK SET
IC17 TC7S08F
Q34 2SA812 Q35 2SA812 INV Q36 2SC1623
S1 GAIN SELECT
IC12 MC14053BF
IC16 TC4S69F
+8.5V +4.6V +4.5V -4.5V +5V -5V
1 2 3 4 5
A B C D E F G H


IC15 BH-1263
SH
CN1
R VA VIDEO OUT(X) 1-41
R VA VIDEO OUT(G) 1-42
G VA VIDEO OUT(X) 1-39
G VA VIDEO OUT(G) 1-40
B VA VIDEO OUT(X) 1-43
B VA VIDEO OUT(G) 1-44
MB
R BLK CONT IN 1-32
G BLK CONT IN 1-33
B BLK CONT IN 1-34
RV4 20k
R42 10k
R44 10k :RN-C
R BLK SET IN 1-46
+4.6V IN 1-28
+4.6V IN 1-54
R WHT SH OUT 1-14
GND 1-2
GND 1-3
-4.5V IN 1-44
R BLK SH OUT 1-47
1-27 V SAW OUT
1-26 H/V PARA OUT
1-45 EXTENDER ON/OFF IN
V SAW OUT 1-28
H/V PARA OUT 1-29
EXTENDER ON/OFF IN 1-37
RV8 10k
R88 10k
R90 10k :RN-C
G BLK SET IN 1-52
1-29 TEST EN IN
TEST ENBL IN 1-24
G WHT SH OUT 1-15
G BLK SH OUT 1-53
R134 10k
R136 10k :RN-C
RV12 20k
B BLK SET IN 1-50
B WHT SH OUT 1-13
1-4 PRE BLK G IN
1-1 +18dB CONT IN
1-48 SAMPLE IN
1-49 HD IN
B BLK SH OUT 1-51
Q50 2SA812
R GAIN CONT IN 1-30
B GAIN CONT IN 1-31
SAMPLE (DELAY OH)IN 1-17
SAMPLE IN 1-21
TEMP IN 1-15
Q48 2SK94
IC13 TL062CPS (1/2)
AMP
Q49 2SA812
IC13 TL062CPS (2/2)
R210 100k
C93 1 25V :TA-C
R195 120k
R196 120k
R197 27k
C114 0.047
Q48
R198 100k
R209 0
R199 1M
R200 1M
R201 1M
C115 0.1
Q49
R202 4700
R204 3300
D17 1S2837
R203 4700
R205 12k
R194 100k
R206 10k
R208 820
R207 8200
Q50

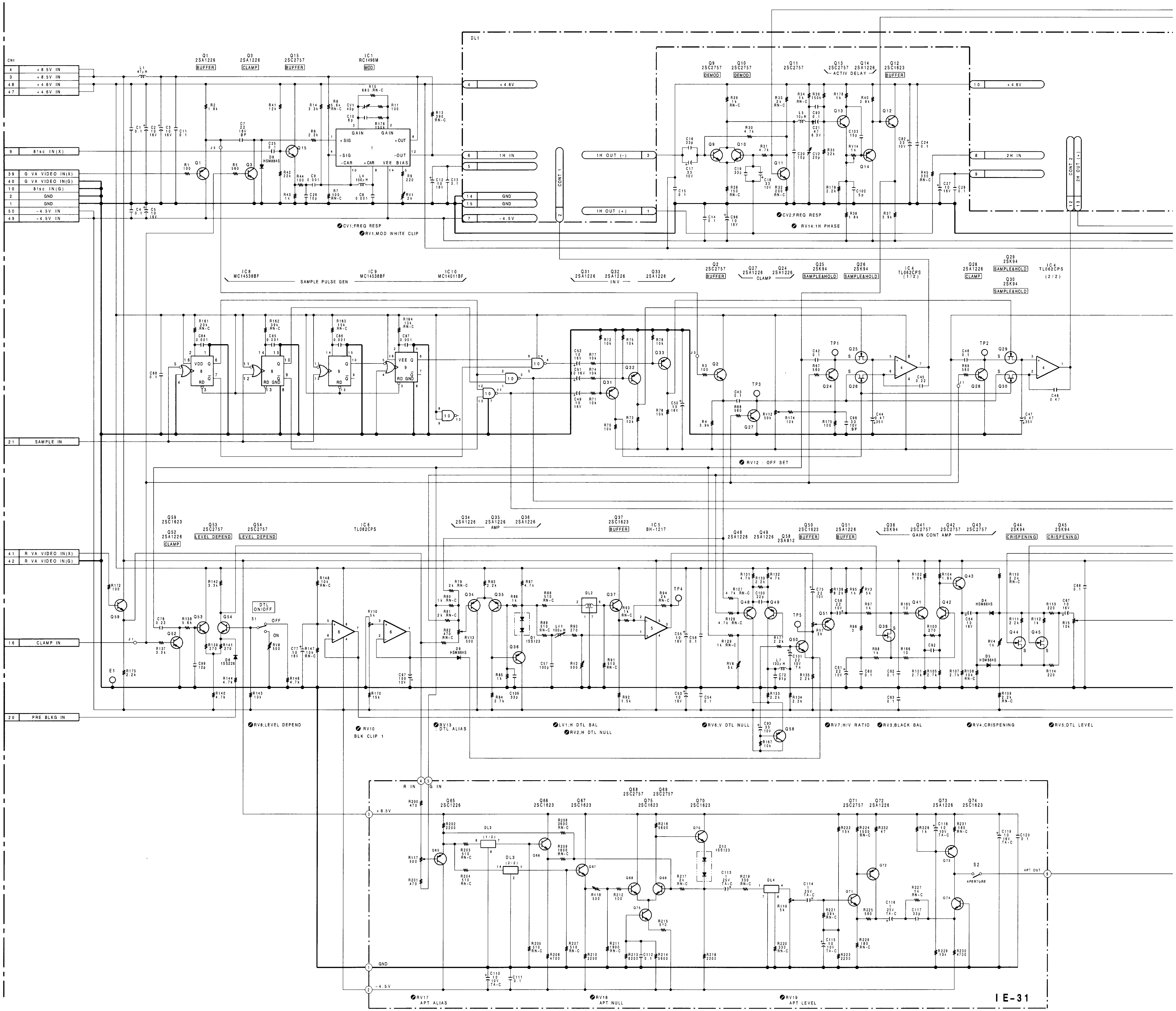
MARK	CHANGE INFORMATION	SERIAL No.
*1	R215 1K ADDED	J:30216- UC:10158-
*2	R216 7.5K R217 7.5K R218 7.5K C94 8p C95 8p C96 8p ADOED	J:30261- UC:10230-

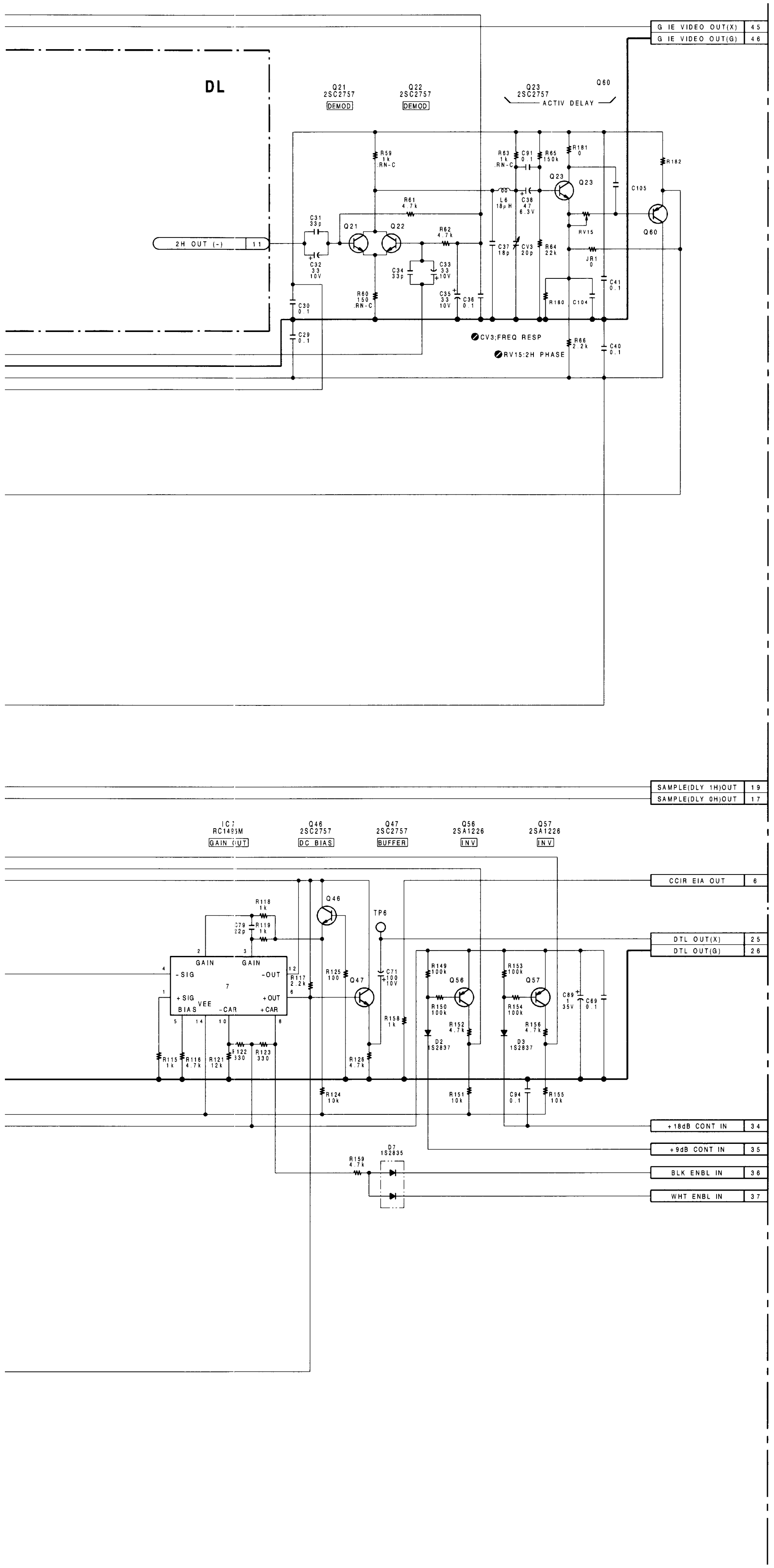
VA-104 BOARD

1-634-965-14, 15
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-

(Page 11-21 to 23 are missing.)

IE-30; IMAGE ENHANCER
IE-31; APERTURE


CN1
+8.5V IN
+8.5V IN
+4.6V IN
+4.6V IN
8fsc IN(X)
G VA VIDEO IN(X)
G VA VIDEO IN(G)
8fsc IN(G)
GND
GND
-4.5V IN
-4.5V IN
SAMPLE IN
R VA VIDEO IN(X)
R VA VIDEO IN(G)
CLAMP IN
PRE BLKG IN
DL1
1H IN
1H OUT (-)
1H OUT (+)
CONT 1
CONT 2
2H IN
2H OUT (+)
Q1 2SA1226 BUFFER
Q3 2SA1226 CLAMP
Q15 2SC2757 BUFFER
IC1 RC1496M MOD
Q9 2SC2757 DEMOD
Q10 2SC2757 DEMOD
Q11 2SC2757
Q13 2SC2757
Q14 2SA1226
ACTIV DELAY
Q12 2SC1623 BUFFER
CV1;FREQ RESP
RV1;MOD WHITE CLIP
CV2;FREQ RESP
RV14;1H PHASE
IC8 MC14538BF
IC9 MC14538BF
IC10 MC14011BF
SAMPLE PULSE GEN
Q31 2SA1226
Q32 2SA1226
Q33 2SA1226
INV
Q2 2SC2757 BUFFER
Q27 2SA1226
Q24 2SA1226
CLAMP
Q25 2SK94 SAMPLE&HOLD
Q26 2SK94 SAMPLE&HOLD
IC4 TL062CPS (1/2)
Q28 2SA1226 CLAMP
Q29 2SK94 SAMPLE&HOLD
Q30 2SK94 SAMPLE&HOLD
IC4 TL062CPS (2/2)
TP1
TP2
TP3
RV12 : OFF SET
Q59 2SC1623
Q52 2SA1226 CLAMP
Q53 2SC2757 LEVEL DEPEND
Q54 2SC2757 LEVEL DEPEND
IC6 TL062CPS
Q34 2SA1226
Q35 2SA1226
Q36 2SA1226
AMP
Q37 2SC1623 BUFFER
IC5 BH-1217
Q48 2SA1226
Q49 2SA1226
Q58 2SA812
Q50 2SC1623 BUFFER
Q51 2SA1226 BUFFER
Q38 2SK94
Q41 2SC2757
Q42 2SC2757
Q43 2SC2757
GAIN CONT AMP
Q44 2SK94 CRISPENING
Q45 2SK94 CRISPENING
DTL ON/OFF
S1
OFF
ON
TP4
TP5
DL2
LV1
RV8;LEVEL DEPEND
RV10 BLK CLIP 1
RV13 DTL ALIAS
LV1;H DTL BAL
RV2;H DTL NULL
RV6;V DTL NULL
RV7;H/V RATIO
RV3;BLACK BAL
RV4;CRISPENING
RV5;DTL LEVEL
R IN
G IN
+8.5V
GND
-4.5V
Q65 2SC1226
Q66 2SC1623
Q67 2SC1623
Q68 2SC2757
Q75 2SC1623
Q69 2SC2757
Q70 2SC1623
Q71 2SC2757
Q72 2SA1226
Q73 2SA1226
Q74 2SC1623
DL3
DL4
S2
APERTURE
APT OUT
RV17 APT ALIAS
RV18 APT NULL
RV19 APT LEVEL
IE-31
1
2
3
4
5
A
B
C
D
E
F
G
H


DL
2H OUT (-) 11
Q21 2SC2757 DEMOD
Q22 2SC2757 DEMOD
Q23 2SC2757
Q60
ACTIV DELAY
G IE VIDEO OUT(X) 45
G IE VIDEO OUT(G) 46
R59 1k RN-C
R60 150 RN-C
R61 4.7k
R62 4.7k
R63 1k RN-C
R64 22k
R65 150k
R66 2.2k
R180
R181 0
R182
C29 0.1
C30 0.1
C31 33p
C32 33 10V
C33 33 10V
C34 33p
C35 33 10V
C36 0.1
C37 18p
C38 47 6.3V
C40 0.1
C41 0.1
C91 0.1
C104
C105
L6 18μH
CV3 20p
RV15
JR1 0
CV3;FREQ RESP
RV15:2H PHASE
SAMPLE(DLY 1H)OUT 19
SAMPLE(DLY 0H)OUT 17
IC7 RC1496M GAIN OUT
Q46 2SC2757 DC BIAS
Q47 2SC2757 BUFFER
Q56 2SA1226 INV
Q57 2SA1226 INV
CCIR EIA OUT 6
DTL OUT(X) 25
DTL OUT(G) 26
TP6
GAIN
GAIN
-SIG
+SIG
-OUT
+OUT
BIAS
VEE
-CAR
+CAR
R115 1k
R116 4.7k
R117 2.2k
R118 1k
R119 1k
R121 12k
R122 330
R123 330
R124 10k
R125 100
R126 4.7k
R149 100k
R150 100k
R151 10k
R152 4.7k
R153 100k
R154 100k
R155 10k
R156 4.7k
R158 1k
R159 4.7k
C69 0.1
C71 100 10V
C79 22p
C89 1 35V
C94 0.1
D2 1S2837
D3 1S2837
D7 1S2835
+18dB CONT IN 34
+9dB CONT IN 35
BLK ENBL IN 36
WHT ENBL IN 37

IE-30 BOARD

1-634-946-12

IE-31 BOARD

1-636-346-11

BVW 400A (J) ;#30001-

BVW 400A (UC) ;#10001-

(Page 11-27 to 29 are missing.)

PR-176/176U, PR-177/BP-020, PR-178/BP-021; GAMMA, MASKING, KNEE, SLOPE, W CUP, DCC

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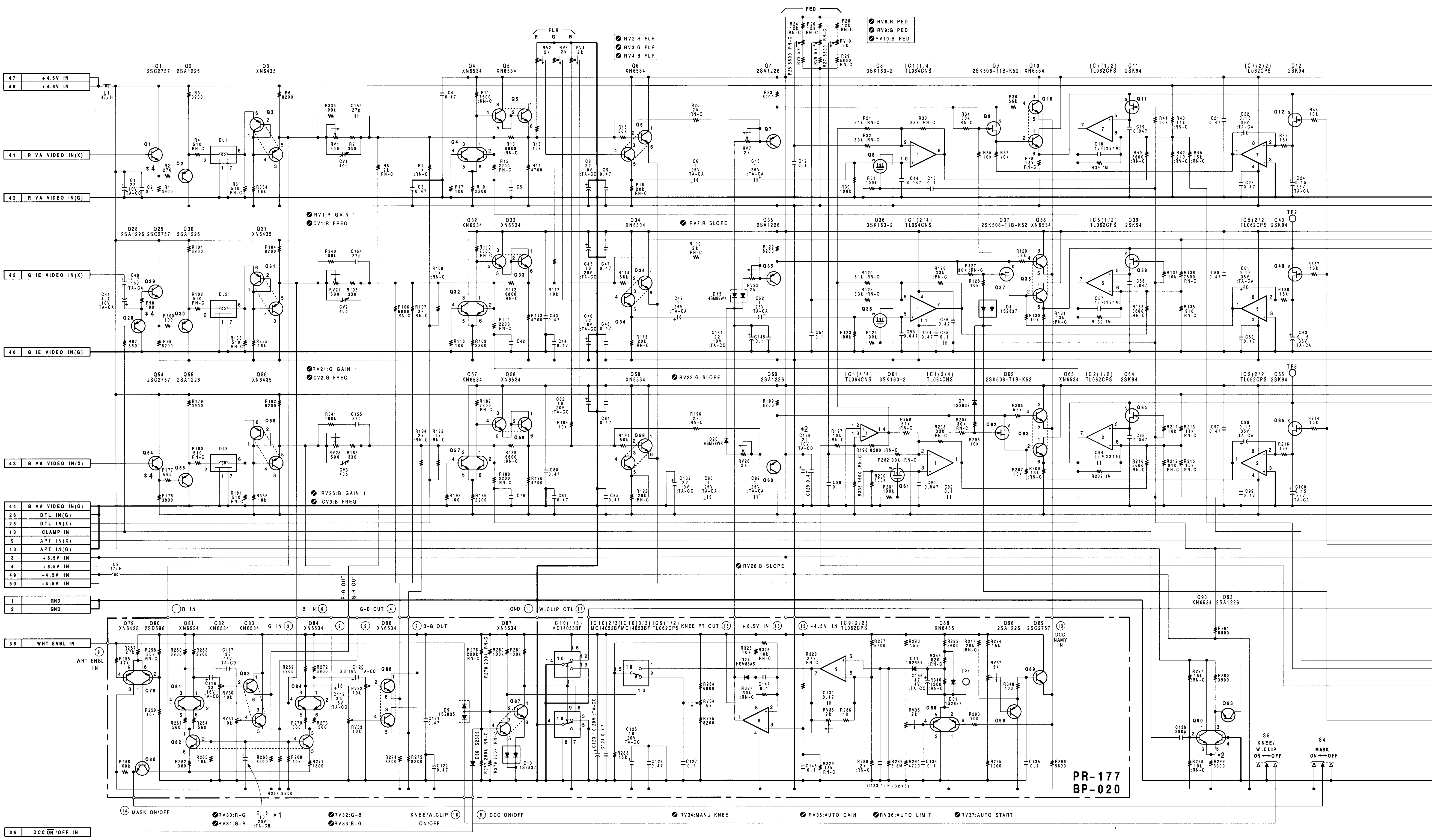
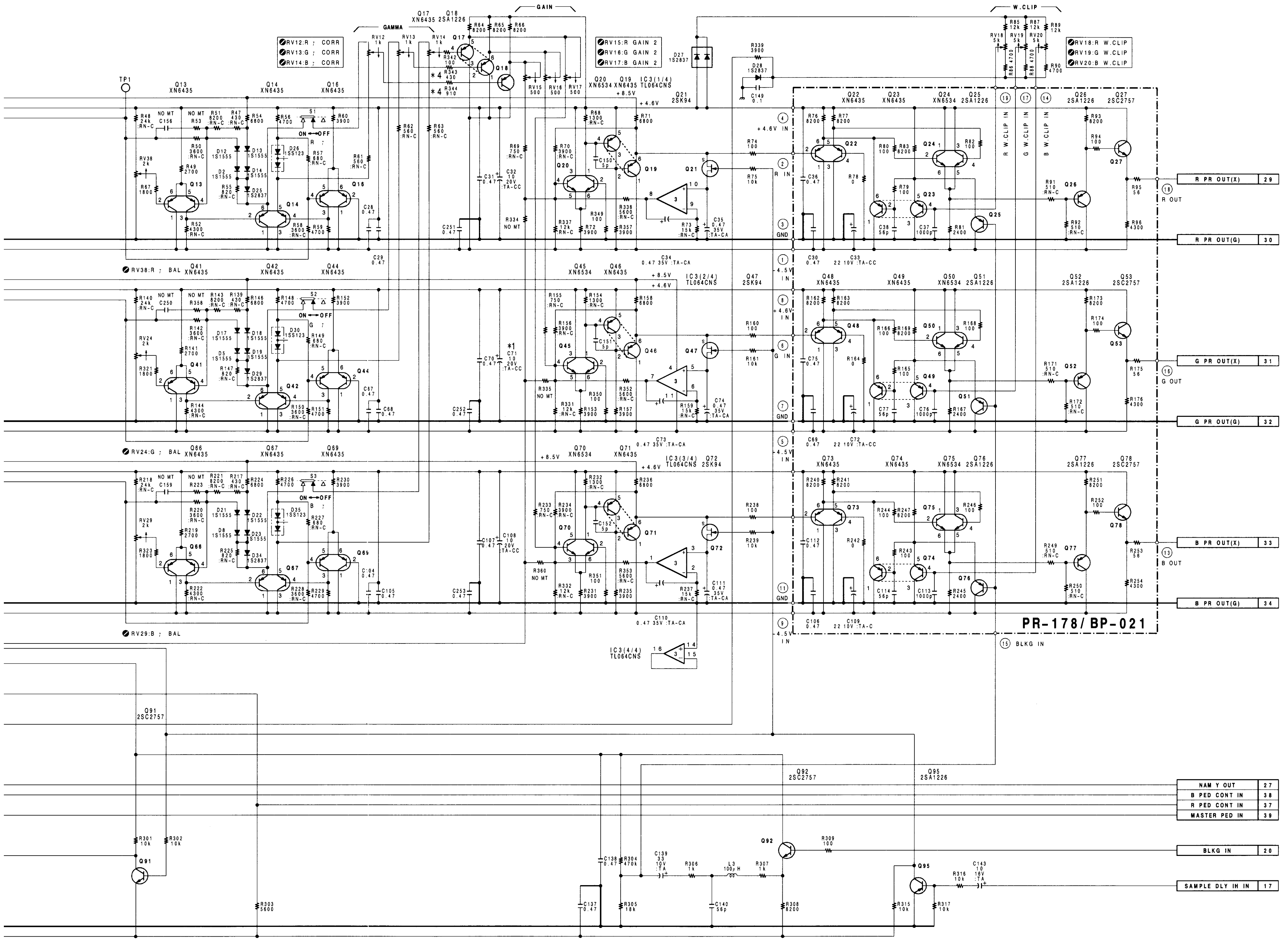

47 +4.8V IN
48 +4.8V IN
41 R VA VIDEO IN(X)
42 R VA VIDEO IN(G)
45 G IE VIDEO IN(X)
46 G IE VIDEO IN(G)
43 B VA VIDEO IN(X)
44 B VA VIDEO IN(G)
26 DTL IN(G)
25 DTL IN(X)
13 CLAMP IN
9 APT IN(X)
10 APT IN(G)
3 +8.5V IN
4 +8.5V IN
49 -4.5V IN
50 -4.5V IN
1 GND
2 GND
36 WHT ENBL IN
35 DCC ON/OFF IN
FLR
PED
RV2:R FLR
RV3:G FLR
RV4:B FLR
RV8:R PED
RV9:G PED
RV10:B PED
RV1:R GAIN 1
CV1:R FREQ
RV21:G GAIN 1
CV2:G FREQ
RV25:B GAIN 1
CV3:B FREQ
RV7:R SLOPE
RV23:G SLOPE
RV28:B SLOPE
TP2
TP3
TP4
R IN
B IN
G-B OUT
G IN
B-G OUT
R-G OUT
G-R OUT
GND
W.CLIP CTL
KNEE PT OUT
+8.5V IN
-4.5V IN
DCC NAMY IN
WHT ENBL IN
MASK ON/OFF
RV30:R-G
RV31:G-R
RV32:G-B
RV33:B-G
KNEE/W.CLIP ON/OFF
DCC ON/OFF
RV34:MANU KNEE
RV35:AUTO GAIN
RV36:AUTO LIMIT
RV37:AUTO START
S5 KNEE/W.CLIP ON OFF
S4 MASK ON OFF
PR-177
BP-020

A B C D E F G H


GAMMA
GAIN
W.CLIP
RV12:R ; CORR
RV13:G ; CORR
RV14:B ; CORR
RV15:R GAIN 2
RV16:G GAIN 2
RV17:B GAIN 2
RV18:R W.CLIP
RV19:G W.CLIP
RV20:B W.CLIP
RV38:R ; BAL
RV24:G ; BAL
RV29:B ; BAL
TP1
Q13 XN6435
Q14 XN6435
Q16 XN6435
Q17 XN6435
Q18 2SA1226
Q20 XN6534
Q19 XN6435
IC3(1/4) TL064CNS
Q21 2SK94
Q22 XN6435
Q23 XN6435
Q24 XN6534
Q25 2SA1226
Q26 2SA1226
Q27 2SC2757
Q41 XN6435
Q42 XN6435
Q44 XN6435
Q45 XN6534
Q46 XN6435
IC3(2/4) TL064CNS
Q47 2SK94
Q48 XN6435
Q49 XN6435
Q50 XN6534
Q51 2SA1226
Q52 2SA1226
Q53 2SC2757
Q66 XN6435
Q67 XN6435
Q69 XN6435
Q70 XN6534
Q71 XN6435
IC3(3/4) TL064CNS
Q72 2SK94
Q73 XN6435
Q74 XN6435
Q75 XN6534
Q76 2SA1226
Q77 2SA1226
Q78 2SC2757
IC3(4/4) TL064CNS
Q91 2SC2757
Q92 2SC2757
Q95 2SA1226
+8.5V
+4.6V
+4.6V IN
R IN
G IN
GND
-4.5V IN
R W.CLIP IN
G W.CLIP IN
B W.CLIP IN
R OUT
G OUT
B OUT
BLKG IN
R PR OUT(X) 29
R PR OUT(G) 30
G PR OUT(X) 31
G PR OUT(G) 32
B PR OUT(X) 33
B PR OUT(G) 34
NAM Y OUT 27
B PED CONT IN 38
R PED CONT IN 37
MASTER PED IN 39
BLKG IN 20
SAMPLE DLY IH IN 17
PR-178/BP-021

MARK	CHANGE INFORMATION	SERIAL No.
*1	C118 10 10V → 10 20V	J:30031- UC:10028-
*2	C128 33 16V → 22 10V 10V R299 4700 → 3300	J:30061- UC:10033-
*3	C71 10 16V → 10 20V	J:30091- UC:10063-
*4	R2 100 → 270 R98 560 → 100 R177 100 → 680 R343 100 → 430 R344 100 → 910	J:30111- UC:10078-

PR-176/176U BOARD

1-643-715-11, 12

PR-177 BOARD BP-020

1-643-701-11

PR-178 BOARD BP-021

1-643-702-11

BVW 400A (J) ;#30001-

BVW 400A (UC) ;#10001-

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(Page 11-33 to 35 are missing.)

EN-79/79U; Y/R-Y/B-Y SIGNAL GEN, ENCODER, CB GEN

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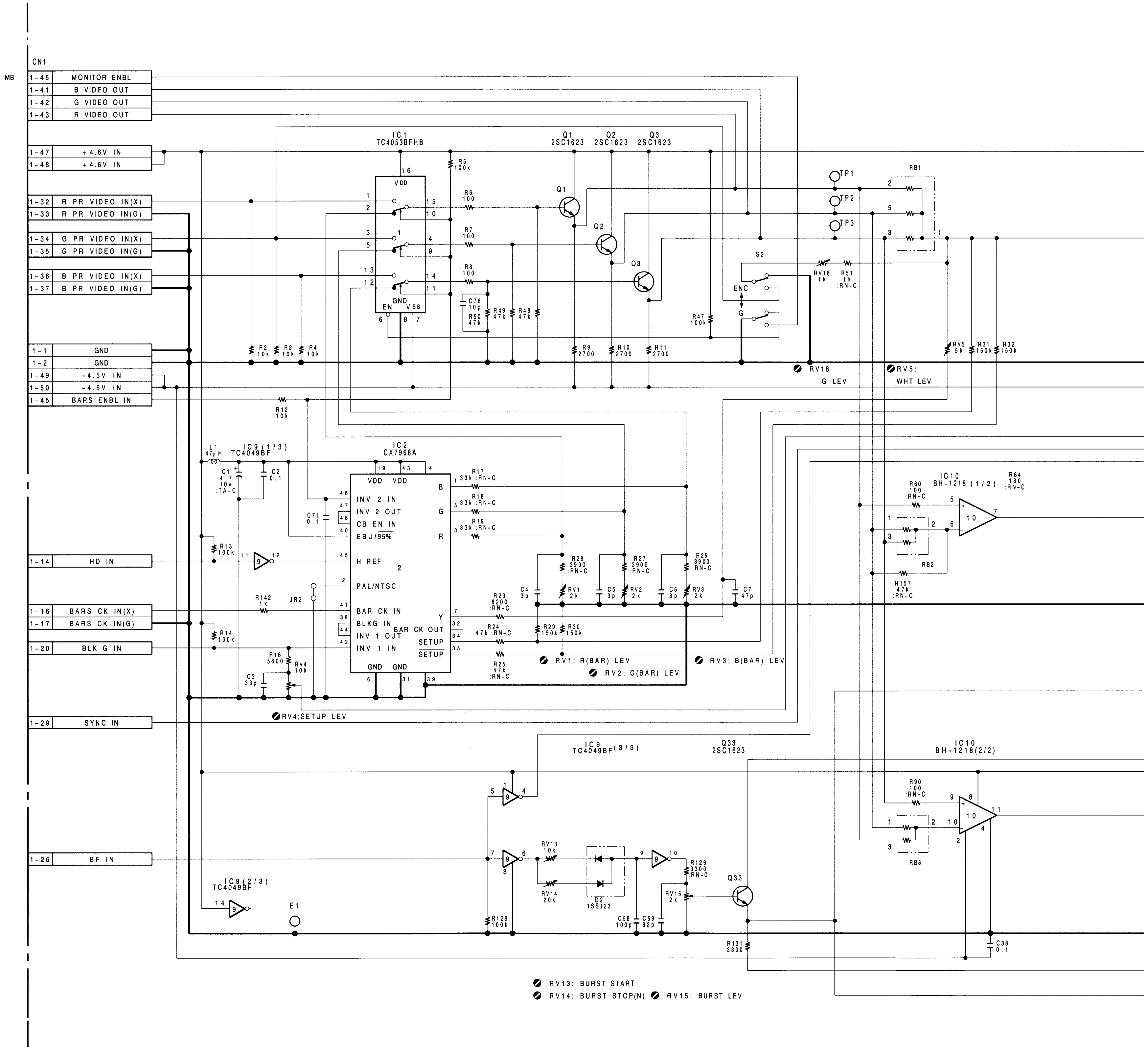
CN1
MB
1-46 MONITOR ENBL
1-41 B VIDEO OUT
1-42 G VIDEO OUT
1-43 R VIDEO OUT
1-47 +4.6V IN
1-48 +4.6V IN
1-32 R PR VIDEO IN(X)
1-33 R PR VIDEO IN(G)
1-34 G PR VIDEO IN(X)
1-35 G PR VIDEO IN(G)
1-36 B PR VIDEO IN(X)
1-37 B PR VIDEO IN(G)
1-1 GND
1-2 GND
1-49 -4.5V IN
1-50 -4.5V IN
1-45 BARS ENBL IN
1-14 HD IN
1-16 BARS CK IN(X)
1-17 BARS CK IN(G)
1-20 BLK G IN
1-29 SYNC IN
1-26 BF IN
IC1 TC4053BFHB
VDD
GND
EN
VSS
R5 100k
R6 100
R7 100
R8 100
C76 10p
R50 47k
R49 47k
R48 47k
R2 10k
R3 10k
R4 10k
R12 10k
Q1 2SC1623
Q2 2SC1623
Q3 2SC1623
R9 2700
R10 2700
R11 2700
R47 100k
S3
ENC
G
RV18 1k
R51 1k :RN-C
RV18 G LEV
TP1
TP2
TP3
RB1
RV5 5k
R31 150k
R32 150k
RV5: WHT LEV
L1 47µH
IC9 (1/3) TC4049BF
C1 4.7 10V :TA-C
C2 0.1
IC2 CX7968A
VDD VDD
INV 2 IN
INV 2 OUT
CB EN IN
EBU/95%
H REF
PAL/NTSC
BAR CK IN
BLKG IN
INV 1 OUT
INV 1 IN
BAR CK OUT
SETUP
SETUP
GND GND
B
G
R
Y
C71 0.1
R13 100k
R14 100k
R142 1k
JR2
R16 5600
RV4 10k
C3 33p
RV4;SETUP LEV
R17 33k :RN-C
R18 33k :RN-C
R19 33k :RN-C
R23 8200 :RN-C
R24 47k :RN-C
R25 47k :RN-C
R28 3900 :RN-C
R27 3900 :RN-C
R26 3900 :RN-C
C4 3p
RV1 2k
C5 3p
RV2 2k
C6 3p
RV3 2k
C7 47p
R29 150k
R30 150k
RV1: R(BAR) LEV
RV2: G(BAR) LEV
RV3: B(BAR) LEV
IC10 BH-1218 (1/2)
R60 100 :RN-C
R64 180 :RN-C
RB2
R157 47k :RN-C
IC9 TC4049BF (3/3)
Q33 2SC1623
IC10 BH-1218(2/2)
R90 100 :RN-C
RB3
RV13 10k
RV14 20k
D2 1SS123
R129 3300 :RN-C
RV15 2k
C58 100p
C59 82p
R128 100k
Q33
R131 3300
C38 0.1
IC9 (2/3) TC4049BF
E1
RV13: BURST START
RV14: BURST STOP(N)
RV15: BURST LEV

A B C D E F G H

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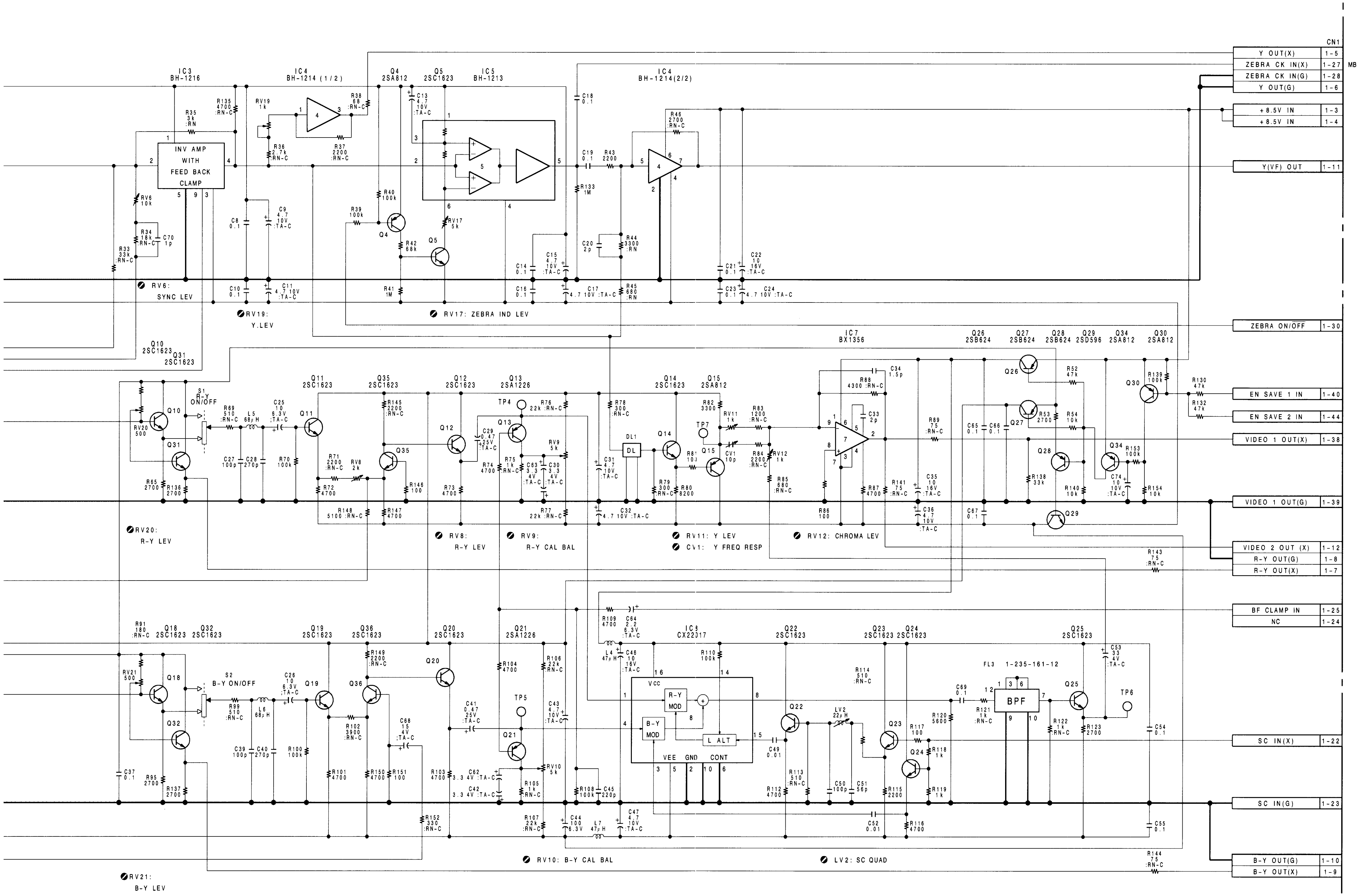

CN1
Y OUT(X) 1-5
ZEBRA CK IN(X) 1-27
ZEBRA CK IN(G) 1-28
Y OUT(G) 1-6
+8.5V IN 1-3
+8.5V IN 1-4
Y(VF) OUT 1-11
ZEBRA ON/OFF 1-30
EN SAVE 1 IN 1-40
EN SAVE 2 IN 1-44
VIDEO 1 OUT(X) 1-38
VIDEO 1 OUT(G) 1-39
VIDEO 2 OUT (X) 1-12
R-Y OUT(G) 1-8
R-Y OUT(X) 1-7
BF CLAMP IN 1-25
NC 1-24
SC IN(X) 1-22
SC IN(G) 1-23
B-Y OUT(G) 1-10
B-Y OUT(X) 1-9
MB
IC3 BH-1216
INV AMP WITH FEED BACK CLAMP
IC4 BH-1214 (1/2)
Q4 2SA812
Q5 2SC1623
IC5 BH-1213
IC4 BH-1214(2/2)
RV6: SYNC LEV
RV19: Y.LEV
RV17: ZEBRA IND LEV
Q10 2SC1623
Q31 2SC1623
S1 R-Y ON/OFF
Q11 2SC1623
Q35 2SC1623
Q12 2SC1623
Q13 2SA1226
TP4
DL1
Q14 2SC1623
Q15 2SA812
TP7
IC7 BX1356
Q26 2SB624
Q27 2SB624
Q28 2SB624
Q29 2SD596
Q34 2SA812
Q30 2SA812
RV20: R-Y LEV
RV8: R-Y LEV
RV9: R-Y CAL BAL
RV11: Y LEV
CV1: Y FREQ RESP
RV12: CHROMA LEV
Q18 2SC1623
Q32 2SC1623
S2 B-Y ON/OFF
Q19 2SC1623
Q36 2SC1623
Q20 2SC1623
Q21 2SA1226
TP5
IC8 CX22317
VCC
R-Y MOD
B-Y MOD
L ALT
VEE GND CONT
Q22 2SC1623
LV2
Q23 2SC1623
Q24 2SC1623
FL3 1-235-161-12
BPF
Q25 2SC1623
TP6
RV21: B-Y LEV
RV10: B-Y CAL BAL
LV2: SC QUAD

EN-79/79U BOARD

1-629-727-14
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-

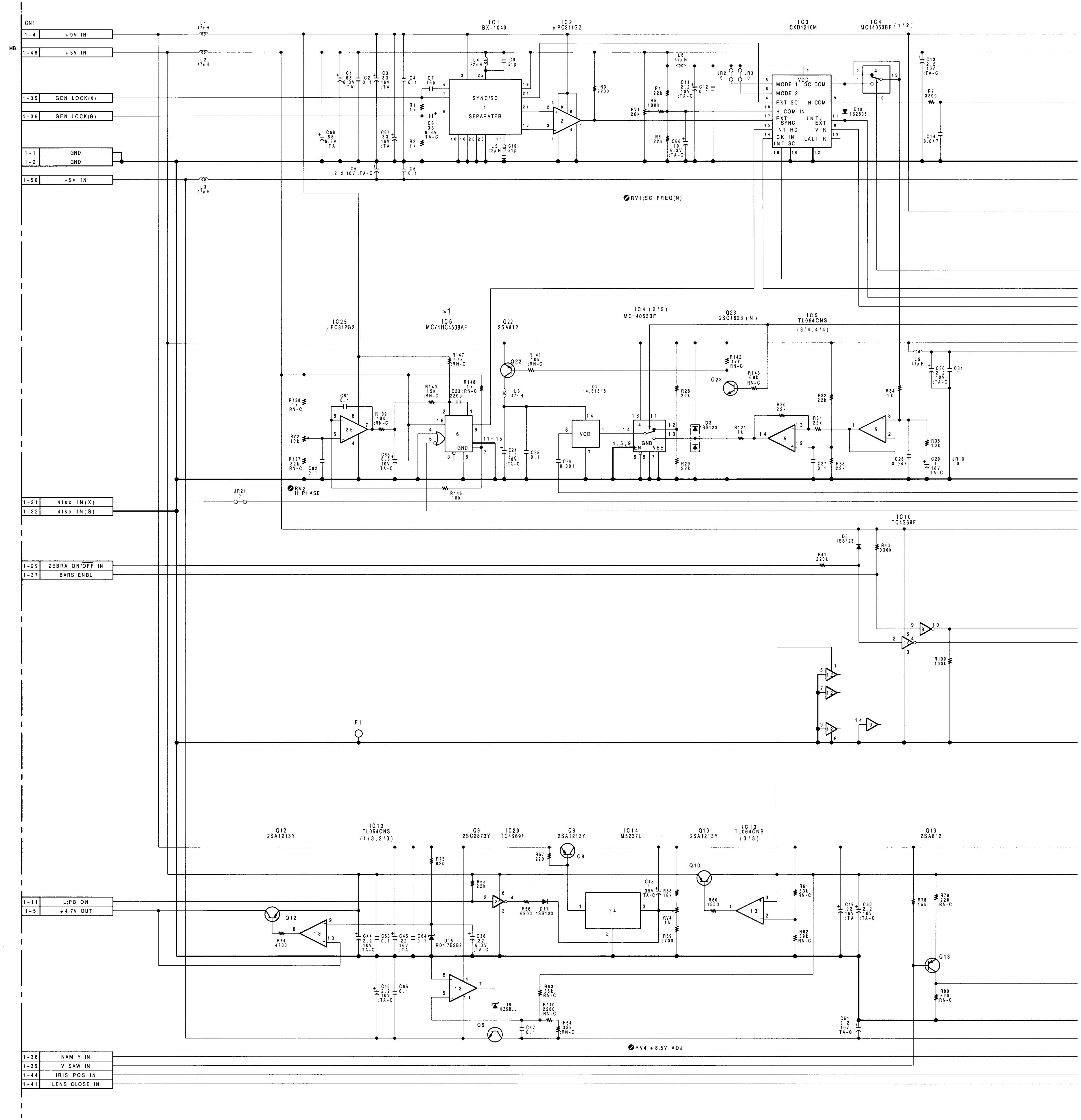
(Page 11-39 to 41 are missing.)

I J K L M N O P

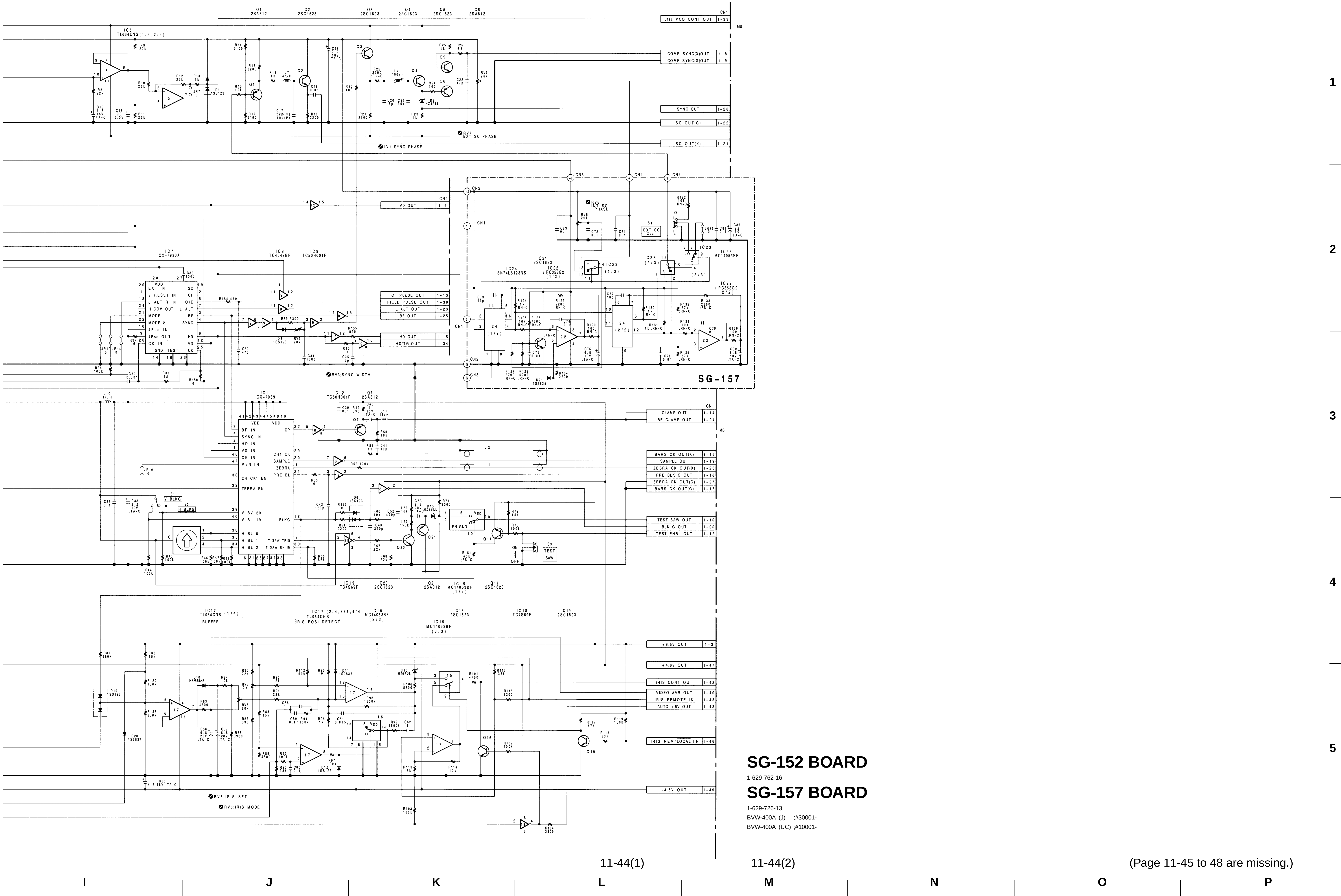
SG-152; SYNC GEN
SG-157; SC PHASE

SG-152 BOARD

MARK	CHANGE INFORMATION	SERIAL NO.
*1	IC6 MC74HC4538F ↓ MC74HC4538AF	J ;30561- UC ;10456-


CN1
MB
1-4 +9V IN
1-48 +5V IN
1-35 GEN LOCK(X)
1-36 GEN LOCK(G)
1-1 GND
1-2 GND
1-50 -5V IN
1-31 4fsc IN(X)
1-32 4fsc IN(G)
1-29 ZEBRA ON/OFF IN
1-37 BARS ENBL
1-11 L;PB ON
1-5 +4.7V OUT
1-38 NAM Y IN
1-39 V SAW IN
1-44 IRIS POS IN
1-41 LENS CLOSE IN
IC1 BX-1040
SYNC/SC SEPARATER
IC2 μPC311G2
IC3 CXD1216M
IC4 MC14053BF (1/2)
RV1;SC FREQ(N)
IC25 μPC812G2
*1 IC6 MC74HC4538AF
Q22 2SA812
IC4 (2/2) MC14053BF
Q23 2SC1623(N)
IC5 TL064CNS (3/4,4/4)
VCO
RV2 H PHASE
IC10 TC4S69F
E1
Q12 2SA1213Y
IC13 TL064CNS (1/3,2/3)
Q9 2SC2873Y
IC20 TC4S69F
Q8 2SA1213Y
IC14 M5237L
Q10 2SA1213Y
IC13 TL064CNS (3/3)
Q13 2SA812
RV4;+8.5V ADJ

1
2
3
4
5


1
2
3
4
5
I
J
K
L
M
N
O
P
8fsc VCO CONT OUT 1-33
COMP SYNC(X)OUT 1-8
COMP SYNC(G)OUT 1-9
SYNC OUT 1-28
SC OUT(G) 1-22
SC OUT(X) 1-21
VD OUT 1-6
CF PULSE OUT 1-13
FIELD PULSE OUT 1-30
L ALT OUT 1-23
BF OUT 1-25
HD OUT 1-15
HD(TG)OUT 1-34
CLAMP OUT 1-14
BF CLAMP OUT 1-24
BARS CK OUT(X) 1-16
SAMPLE OUT 1-19
ZEBRA CK OUT(X) 1-26
PRE BLK G OUT 1-18
ZEBRA CK OUT(G) 1-27
BARS CK OUT(G) 1-17
TEST SAW OUT 1-10
BLK G OUT 1-20
TEST ENBL OUT 1-12
+8.5V OUT 1-3
+4.6V OUT 1-47
IRIS CONT OUT 1-42
VIDEO AVR OUT 1-40
IRIS REMOTE IN 1-45
AUTO +5V OUT 1-43
IRIS REM/LOCAL IN 1-46
-4.5V OUT 1-49
RV7 EXT SC PHASE
LV1 SYNC PHASE
RV8 INT SC PHASE
RV3 SYNC WIDTH
RV5 IRIS SET
RV6 IRIS MODE
SG-157
IC5 TL064CNS (1/4, 2/4)
IC7 CX-7930A
IC8 TC4049BF
IC9 TC50H001F
IC11 CX-7969
IC12 TC50H001F
IC17 TL064CNS (1/4) BUFFER
IC17 (2/4, 3/4, 4/4) TL064CNS IRIS POSI DETECT
IC15 MC14053BF
IC18 TC4S69F
IC19 TC4S69F
IC22 μPC358G2
IC23 MC14053BF
IC24 SN74LS123NS
S1 V BLKG
S2 H BLKG
S3 TEST SAW
S4 EXT SC
MB

SG-152 BOARD

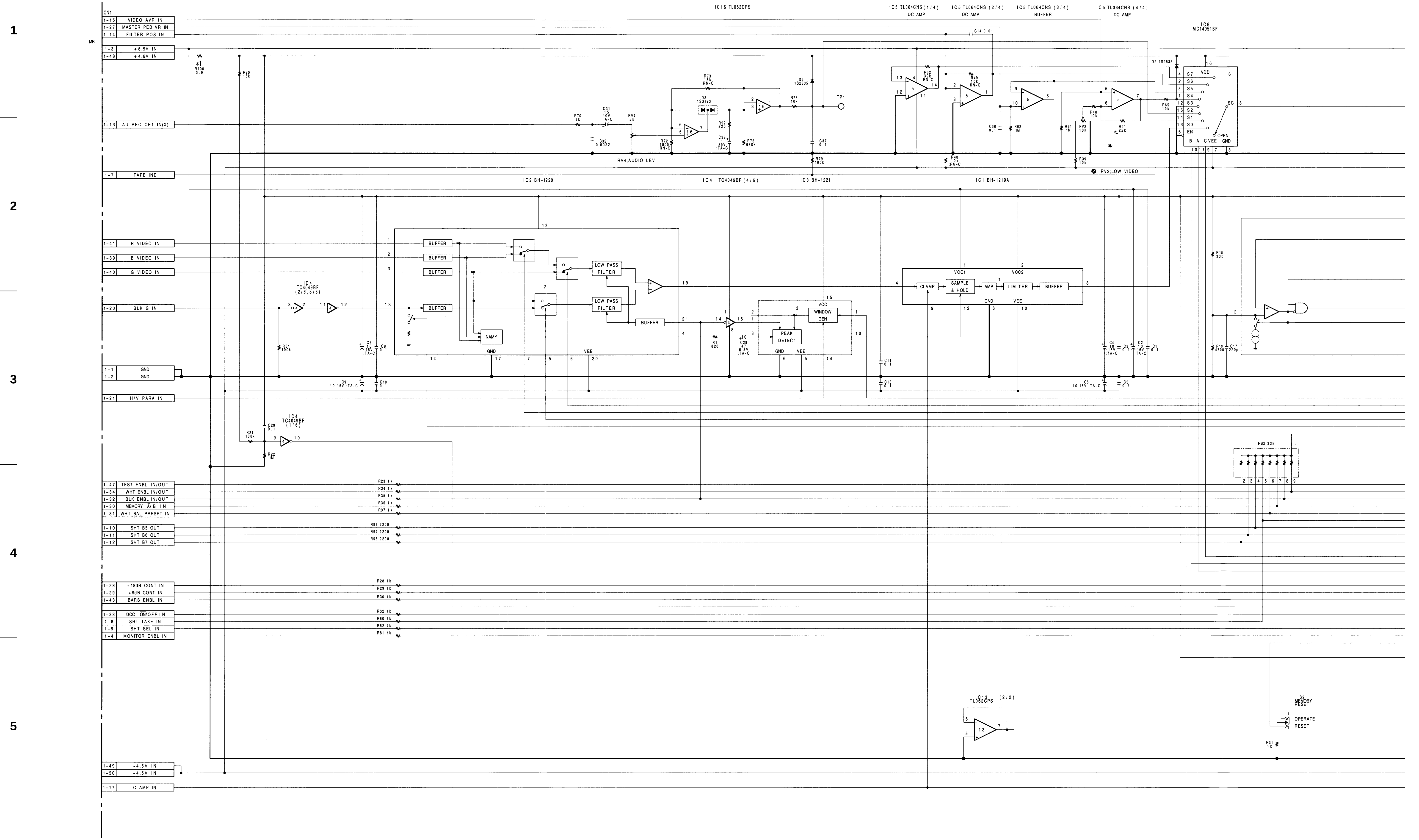
1-629-762-16

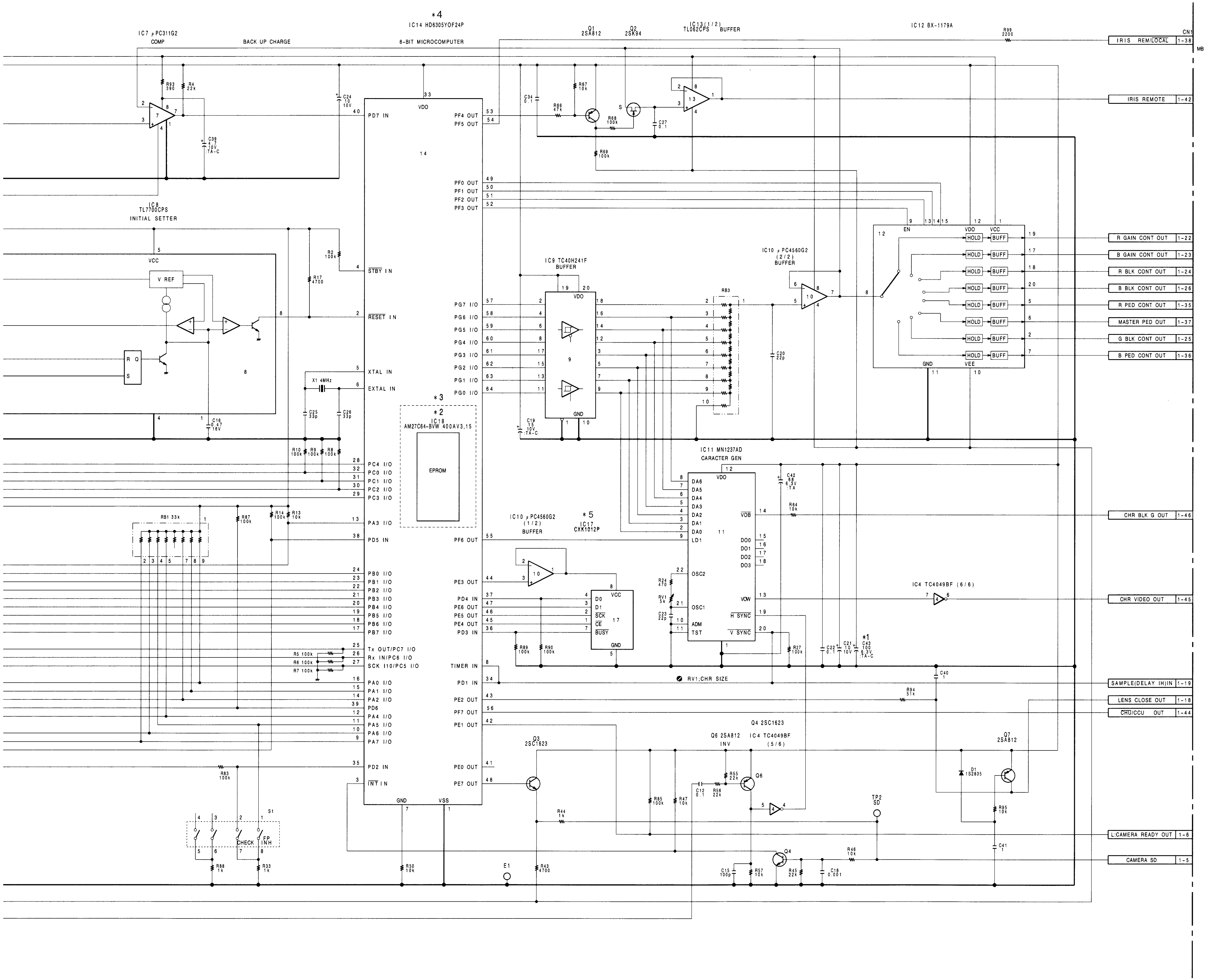
SG-157 BOARD

1-629-726-13
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-

(Page 11-45 to 48 are missing.)

AT-49B; AUTO W/B, CHARA GEN, SYS-CON


CN1
MB
1-15 VIDEO AVR IN
1-27 MASTER PED VR IN
1-14 FILTER POS IN
1-3 +8.5V IN
1-48 +4.6V IN
*1 R100 3.9
R20 15k
1-13 AU REC CH1 IN(X)
1-7 TAPE IND
1-41 R VIDEO IN
1-39 B VIDEO IN
1-40 G VIDEO IN
1-20 BLK G IN
1-1 GND
1-2 GND
1-21 H/V PARA IN
1-47 TEST ENBL IN/OUT
1-34 WHT ENBL IN/OUT
1-32 BLK ENBL IN/OUT
1-30 MEMORY A/B IN
1-31 WHT BAL PRESET IN
1-10 SHT B5 OUT
1-11 SHT B6 OUT
1-12 SHT B7 OUT
1-28 +18dB CONT IN
1-29 +9dB CONT IN
1-43 BARS ENBL IN
1-33 DCC ON/OFF IN
1-8 SHT TAKE IN
1-9 SHT SEL IN
1-4 MONITOR ENBL IN
1-49 -4.5V IN
1-50 -4.5V IN
1-17 CLAMP IN
R23 1k
R34 1k
R35 1k
R36 1k
R37 1k
R96 2200
R97 2200
R98 2200
R28 1k
R29 1k
R30 1k
R32 1k
R80 1k
R82 1k
R81 1k
IC16 TL062CPS
R70 1k
C31 15 10V :TA-C
C32 0.0022
RV4 5k
RV4;AUDIO LEV
R72 1800 :RN-C
R73 18k :RN-C
D3 1SS123
R92 820
C38 1 35V :TA-C
R76 680k
R78 10k
D4 1S2835
TP1
C37 0.1
R79 100k
IC5 TL064CNS (1/4) DC AMP
IC5 TL064CNS (2/4) DC AMP
IC5 TL064CNS (3/4) BUFFER
IC5 TL064CNS (4/4) DC AMP
C14 0.01
R52 39k :RN-C
R49 10k :RN-C
C30 0.1
R62 1M
R61 1M
RV2 10k
R40 10k
R41 22k
R65 10k
R48 10k :RN-C
R39 10k
RV2;LOW VIDEO
IC6 MC14051BF
D2 1S2835
S7 S6 S5 S4 S3 S2 S1 S0 EN
VDD
SC
OPEN
B A C VEE GND
IC2 BH-1220
IC4 TC4049BF (4/6)
IC3 BH-1221
IC1 BH-1219A
IC4 TC4049BF (2/6, 3/6)
R51 100k
C7 10 16V :TA-C
C8 0.1
C9 10 16V :TA-C
C10 0.1
BUFFER
LOW PASS FILTER
NAMY
GND
VEE
R1 820
C28 47 6.3V :TA-C
VCC
WINDOW GEN
PEAK DETECT
C11 0.1
C13 0.1
VCC1
VCC2
CLAMP
SAMPLE & HOLD
AMP
LIMITER
C4 10 16V :TA-C
C3 0.1
C2 10 16V :TA-C
C1 0.1
C6 10 16V :TA-C
C5 0.1
R18 33k
R19 4700
C17 220p
IC4 TC4049BF (1/6)
R21 100k
C29 0.1
R22 1M
RB2 33k
IC13 TL062CPS (2/2)
S2 MEMORY RESET
OPERATE
RESET
R31 1k
1
2
3
4
5
A
B
C
D
E
F
G
H


IC7 μPC311G2
COMP
BACK UP CHARGE
*4
IC14 HD6305YOF24P
8-BIT MICROCOMPUTER
Q1 2SA812
Q2 2SK94
IC13 (1/2) TL062CPS BUFFER
IC12 BX-1179A
R99 2200
CN1
IRIS REMI/LOCAL 1-38
MB
IRIS REMOTE 1-42
IC8 TL7700CPS
INITIAL SETTER
V REF
VCC
PD7 IN
PF4 OUT
PF5 OUT
PF0 OUT
PF1 OUT
PF2 OUT
PF3 OUT
STBY IN
RESET IN
XTAL IN
EXTAL IN
X1 4MHz
PG7 I/O
PG6 I/O
PG5 I/O
PG4 I/O
PG3 I/O
PG2 I/O
PG1 I/O
PG0 I/O
IC9 TC40H241F
BUFFER
RB3
IC10 μPC4560G2 (2/2)
BUFFER
EN
HOLD
BUFF
GND
VEE
R GAIN CONT OUT 1-22
B GAIN CONT OUT 1-23
R BLK CONT OUT 1-24
B BLK CONT OUT 1-26
R PED CONT OUT 1-35
MASTER PED OUT 1-37
G BLK CONT OUT 1-25
B PED CONT OUT 1-36
*3
*2
IC18
AM27C64-BVW 400AV3,15
EPROM
IC11 MN1237AD
CARACTER GEN
DA6
DA5
DA4
DA3
DA2
DA1
DA0
LD1
OSC2
OSC1
ADM
TST
VOB
DO0
DO1
DO2
DO3
VOW
H SYNC
V SYNC
CHR BLK G OUT 1-46
PC4 I/O
PC0 I/O
PC1 I/O
PC2 I/O
PC3 I/O
PA3 I/O
PD5 IN
RB1 33k
IC10 μPC4560G2 (1/2)
BUFFER
*5
IC17 CXK1012P
PF6 OUT
PE3 OUT
PD4 IN
PE6 OUT
PE5 OUT
PE4 OUT
PD3 IN
D0
D1
SCK
CE
BUSY
IC4 TC4049BF (6/6)
CHR VIDEO OUT 1-45
PB0 I/O
PB1 I/O
PB2 I/O
PB3 I/O
PB4 I/O
PB5 I/O
PB6 I/O
PB7 I/O
Tx OUT/PC7 I/O
Rx IN/PC6 I/O
SCK I10/PC5 I/O
TIMER IN
PD1 IN
PE2 OUT
PF7 OUT
PE1 OUT
PA0 I/O
PA1 I/O
PA2 I/O
PD6
PA4 I/O
PA5 I/O
PA6 I/O
PA7 I/O
PD2 IN
INT IN
PE0 OUT
PE7 OUT
RV1;CHR SIZE
SAMPLE(DELAY IH)IN 1-19
LENS CLOSE OUT 1-18
CHU/CCU OUT 1-44
Q3 2SC1623
Q4 2SC1623
Q6 2SA812
INV
IC4 TC4049BF (5/6)
Q7 2SA812
D1 1S2835
TP2 SD
S1
CHECK
FP INH
E1
L:CAMERA READY OUT 1-6
CAMERA SD 1-5
*1

MARK	CHANGE INFORMATION	SERIAL No.
*1	C43 100 6.3V R100 3.9 ADDED	J ;30091- UC;10063-
*2	IC18 AM27C64-BVW400AV3,03 ↓ AM27C64-BVW400AV3,15	J ;30216- UC;10158-
*3	IC14 HD63P05YO ↓ HD6305YOE95P IC18 DELETE	J ;30476- UC;10416- EK;40712-
*4	IC14 HD63P05YO ↓ HD6305YOE95P	J ;30476-31175 UC;10416-11413 EK;40712-42052
	IC14 HD6305YOE95P ↓ HD6305YOF24P	J ;31176- UC;11414- EK;42053-
*5	IC17 CXK1011P ↓ CXK1012P	J ;31176- UC;11414- EK;42053-

AT-49B BOARD

1-625-097-15
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

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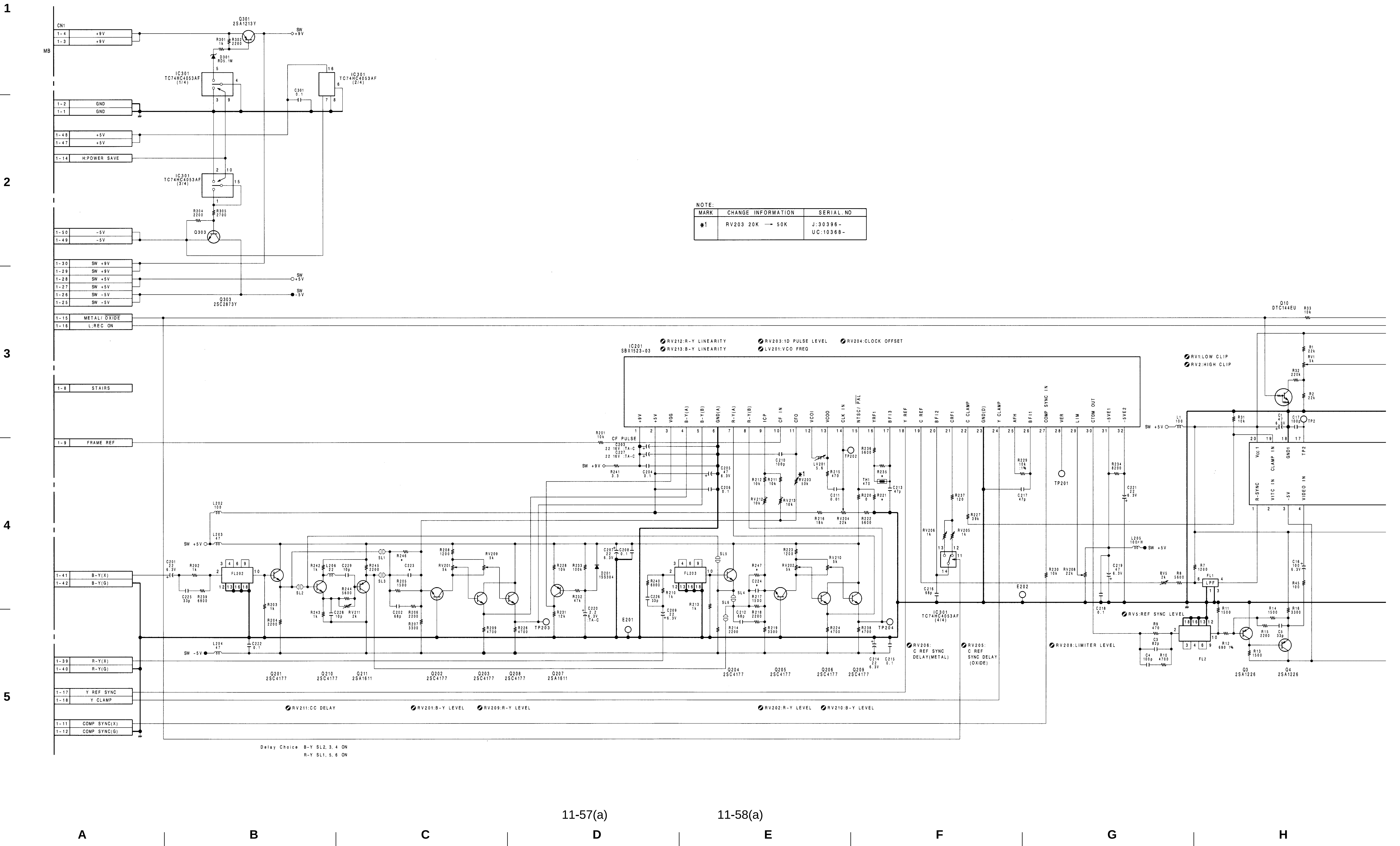
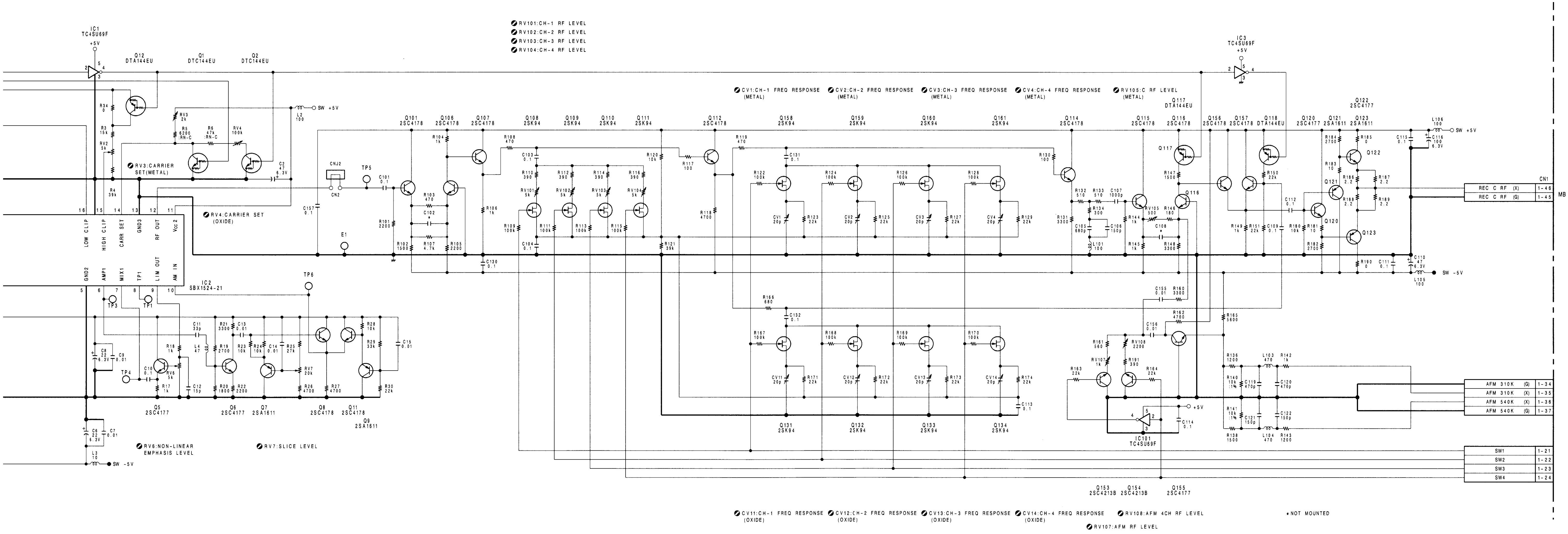
VDA-11; CTDM AND C-MODULATOR

S/N J ; 30001 through 30935
UC ; 10001 through 11053


1
2
3
4
5
A
B
C
D
E
F
G
H
MB
CN1
1-4 +9V
1-3 +9V
1-2 GND
1-1 GND
1-48 +5V
1-47 +5V
1-14 H:POWER SAVE
1-50 -5V
1-49 -5V
1-30 SW +9V
1-29 SW +9V
1-28 SW +5V
1-27 SW +5V
1-26 SW -5V
1-25 SW -5V
1-15 METAL/ OXIDE
1-16 L;REC ON
1-8 STAIRS
1-9 FRAME REF
1-41 B-Y(X)
1-42 B-Y(G)
1-39 R-Y(X)
1-40 R-Y(G)
1-17 Y REF SYNC
1-18 Y CLAMP
1-11 COMP SYNC(X)
1-12 COMP SYNC(G)
Q301 2SA1213Y
D301 RD5.1M
IC301 TC74HC4053AF (1/4)
IC301 TC74HC4053AF (2/4)
IC301 TC74HC4053AF (3/4)
IC301 TC74HC4053AF (4/4)
Q303 2SC2873Y
SW +9V
SW +5V
SW -5V
IC201 SBX1523-03
RV212:R-Y LINEARITY
RV213:B-Y LINEARITY
RV203:1D PULSE LEVEL
LV201:VCO FREQ
RV204:CLOCK OFFSET
+9V
+5V
VGG
B-Y(A)
B-Y(B)
GND(A)
R-Y(A)
R-Y(B)
ICP
CF IN
CFO
VCOI
VCOO
CLK IN
NTSC/ PAL
YRFI
BFI3
Y REF
C REF
BFI2
CRFI
C CLAMP
GND(D)
Y CLAMP
AFH
BFI1
COMP SYNC IN
VER
LIM
CTDM OUT
-5VE1
-5VE2
CF PULSE
TP201
TP202
TP203
TP204
E201
E202
FL202
FL203
SL1
SL2
SL3
SL4
SL5
SL6
D201 1SS304
Q201 2SC4177
Q210 2SC4177
Q211 2SA1611
Q202 2SC4177
Q203 2SC4177
Q208 2SC4177
Q207 2SA1611
Q204 2SC4177
Q205 2SC4177
Q206 2SC4177
Q209 2SC4177
RV211:CC DELAY
RV201:B-Y LEVEL
RV209:R-Y LEVEL
RV202:R-Y LEVEL
RV210:B-Y LEVEL
RV206: C REF SYNC DELAY(METAL)
RV205: C REF SYNC DELAY (OXIDE)
RV208:LIMITER LEVEL
RV5:REF SYNC LEVEL
RV1:LOW CLIP
RV2:HIGH CLIP
Q10 DTC144EU
Vcc 1
CLAMP IN
GND1
TP2
R-SYNC
VITC IN
-5V
VIDEO IN
LPF
FL1
FL2
Q3 2SA1226
Q4 2SA1226
Delay Choice B-Y SL2, 3, 4 ON
R-Y SL1, 5, 6 ON

NOTE:

MARK	CHANGE INFORMATION	SERIAL.NO
*1	RV203 20K → 50K	J:30396- UC:10368-


IC1
TC4SU69F
+5V
Q12
DTA144EU
Q1
DTC144EU
Q2
DTC144EU
RV3:CARRIER SET(METAL)
RV4:CARRIER SET (OXIDE)
RV101:CH-1 RF LEVEL
RV102:CH-2 RF LEVEL
RV103:CH-3 RF LEVEL
RV104:CH-4 RF LEVEL
CV1:CH-1 FREQ RESPONSE (METAL)
CV2:CH-2 FREQ RESPONSE (METAL)
CV3:CH-3 FREQ RESPONSE (METAL)
CV4:CH-4 FREQ RESPONSE (METAL)
RV105:C RF LEVEL (METAL)
IC3
TC4SU69F
IC2
SBX1524-21
LOW CLIP
HIGH CLIP
CARR SET
GND3
RF OUT
Vcc 2
GND2
AMP1
MIX1
TP1
LIM OUT
AM IN
TP1
TP3
TP4
TP5
TP6
E1
CNJ2
CN2
SW +5V
SW -5V
Q101
2SC4178
Q106
2SC4178
Q107
2SC4178
Q108
2SK94
Q109
2SK94
Q110
2SK94
Q111
2SK94
Q112
2SC4178
Q158
2SK94
Q159
2SK94
Q160
2SK94
Q161
2SK94
Q114
2SC4178
Q115
2SC4178
Q116
2SC4178
Q117
DTA144EU
Q156
2SC4178
Q157
2SC4178
Q118
DTA144EU
Q120
2SC4177
Q121
2SA1611
Q122
2SC4177
Q123
2SA1611
Q131
2SK94
Q132
2SK94
Q133
2SK94
Q134
2SK94
IC101
TC4SU69F
Q153
2SC4213B
Q154
2SC4213B
Q155
2SC4177
Q5
2SC4177
Q6
2SC4177
Q7
2SA1611
Q8
2SC4178
Q11
2SC4178
Q9
2SA1611
RV6:NON-LINEAR EMPHASIS LEVEL
RV7:SLICE LEVEL
CV11:CH-1 FREQ RESPONSE (OXIDE)
CV12:CH-2 FREQ RESPONSE (OXIDE)
CV13:CH-3 FREQ RESPONSE (OXIDE)
CV14:CH-4 FREQ RESPONSE (OXIDE)
RV108:AFM 4CH RF LEVEL
RV107:AFM RF LEVEL
* NOT MOUNTED
CN1
MB
REC C RF (X) 1-46
REC C RF (G) 1-45
AFM 310K (G) 1-34
AFM 310K (X) 1-35
AFM 540K (X) 1-36
AFM 540K (G) 1-37
SW1 1-21
SW2 1-22
SW3 1-23
SW4 1-24

VDA-11 BOARD

1-625-541-16
BVW-400A (J) ;#30001-30935
BVW-400A (UC) ;#10001-11053

VDA-11 (1/2); CTDM AND C-MODULATOR

S/N J ; 30936 and higher
UC ; 11054 and higher

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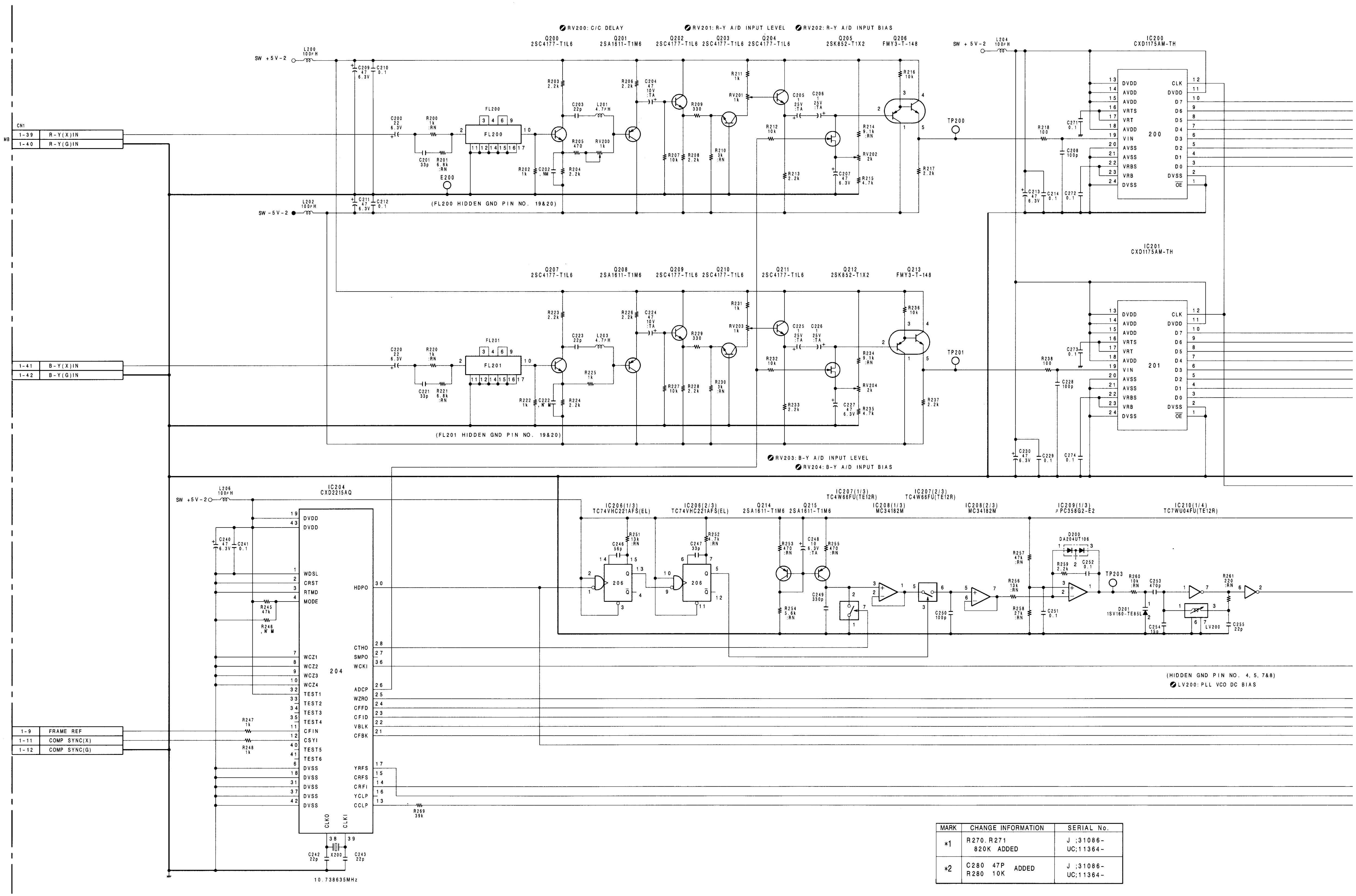
CN1
1-39 R-Y(X)IN
1-40 R-Y(G)IN
1-41 B-Y(X)IN
1-42 B-Y(G)IN
1-9 FRAME REF
1-11 COMP SYNC(X)
1-12 COMP SYNC(G)
SW +5V-2
SW -5V-2
FL200
FL201
E200
(FL200 HIDDEN GND PIN NO. 19&20)
(FL201 HIDDEN GND PIN NO. 19&20)
RV200: C/C DELAY
RV201: R-Y A/D INPUT LEVEL
RV202: R-Y A/D INPUT BIAS
RV203: B-Y A/D INPUT LEVEL
RV204: B-Y A/D INPUT BIAS
Q200 2SC4177-T1L6
Q201 2SA1611-T1M6
Q202 2SC4177-T1L6
Q203 2SC4177-T1L6
Q204 2SC4177-T1L6
Q205 2SK852-T1X2
Q206 FMY3-T-148
Q207 2SC4177-T1L6
Q208 2SA1611-T1M6
Q209 2SC4177-T1L6
Q210 2SC4177-T1L6
Q211 2SC4177-T1L6
Q212 2SK852-T1X2
Q213 FMY3-T-148
TP200
TP201
IC200 CXD1175AM-TH
IC201 CXD1175AM-TH
IC204 CXD2215AQ
IC206(1/3) TC74VHC221AFS(EL)
IC206(2/3) TC74VHC221AFS(EL)
Q214 2SA1611-T1M6
Q215 2SA1611-T1M6
IC207(1/3) TC4W66FU(TE12R)
IC207(2/3) TC4W66FU(TE12R)
IC208(1/3) MC34182M
IC208(2/3) MC34182M
IC209(1/3) μPC358G2-E2
IC210(1/4) TC7WU04FU(TE12R)
D200 DA204UT106
D201 1SV160-TE85L
TP203
LV200
X200 10.738635MHz
(HIDDEN GND PIN NO. 4, 5, 7&8)
LV200: PLL VCO DC BIAS

MARK	CHANGE INFORMATION	SERIAL No.
*1	R270, R271 820K ADDED	J ;31086- UC;11364-
*2	C280 47P ADDED R280 10K	J ;31086- UC;11364-

A B C D E F G H

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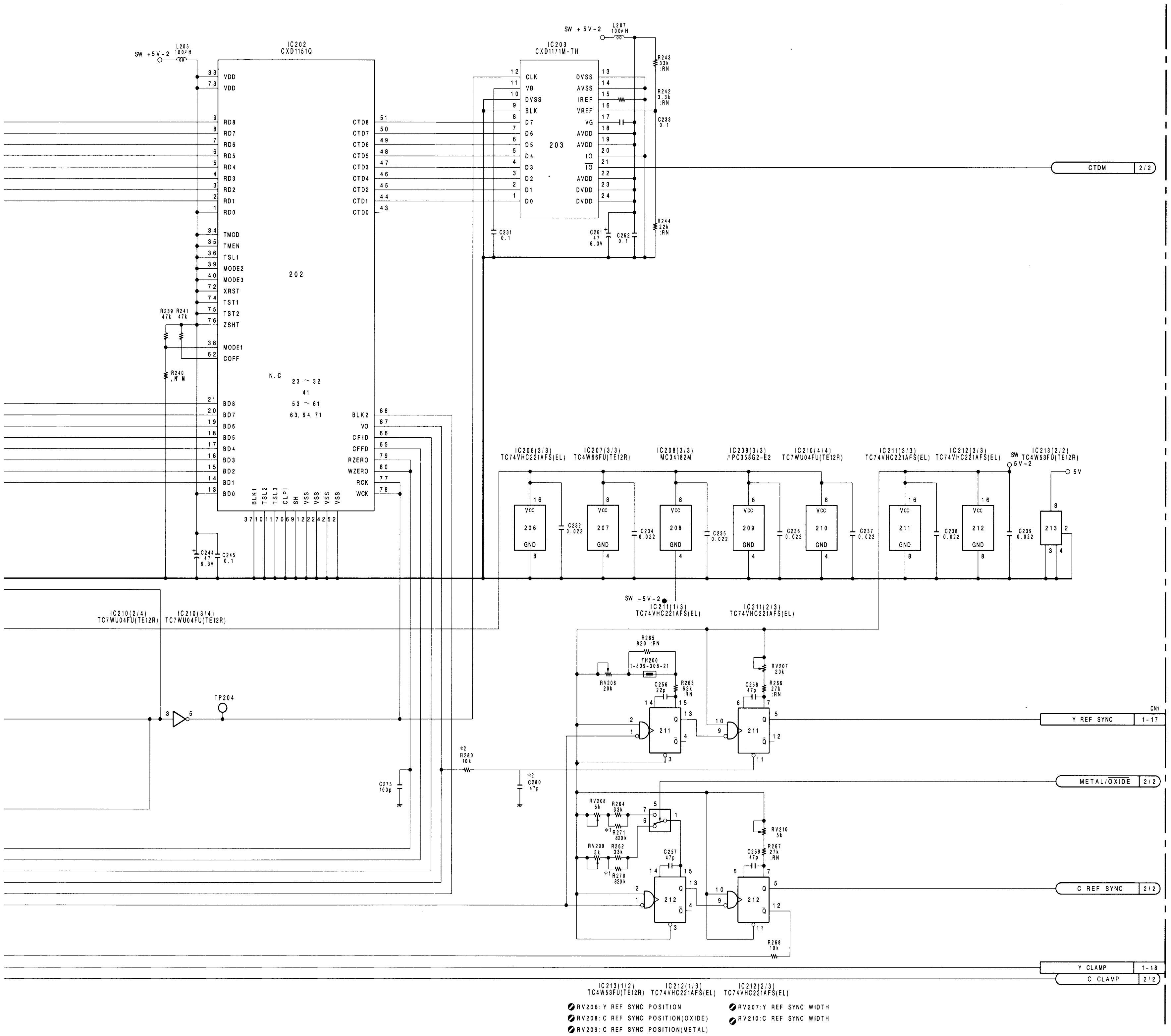
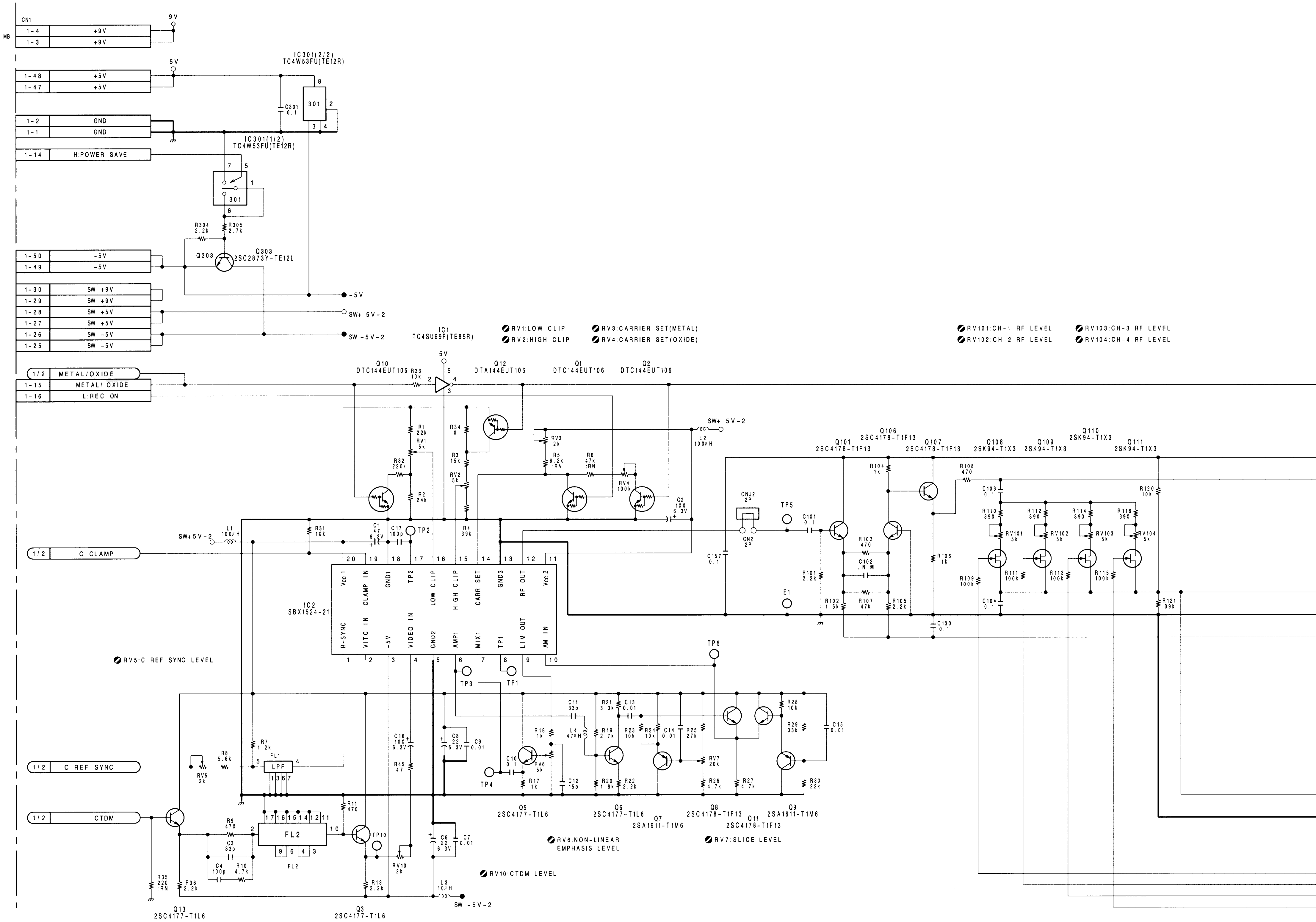

IC202
CXD1151Q
202
SW +5V-2
L205 100μH
VDD
RD8 RD7 RD6 RD5 RD4 RD3 RD2 RD1 RD0
TMOD TMEN TSL1 MODE2 MODE3 XRST TST1 TST2 ZSHT
MODE1 COFF
CTD8 CTD7 CTD6 CTD5 CTD4 CTD3 CTD2 CTD1 CTD0
N.C 23 ~ 32 41 53 ~ 61 63, 64, 71
BD8 BD7 BD6 BD5 BD4 BD3 BD2 BD1 BD0
BLK2 VO CFID CFFD RZERO WZERO RCK WCK
BLK1 TSL2 TSL3 CLPI SH VSS VSS VSS VSS
R239 47k R241 47k
R240
C244 47 6.3V
C245 0.1
IC203
CXD1171M-TH
203
SW +5V-2
L207 100μH
CLK VB DVSS BLK D7 D6 D5 D4 D3 D2 D1 D0
DVSS AVSS IREF VREF VG AVDD AVDD IO IO AVDD DVDD DVDD
R243 33k :RN
R242 3.3k :RN
C233 0.1
R244 22k :RN
C231 0.1
C261 47 6.3V
C262 0.1
CTDM 2/2
IC206(3/3) TC74VHC221AFS(EL)
IC207(3/3) TC4W66FU(TE12R)
IC208(3/3) MC34182M
IC209(3/3) μPC358G2-E2
IC210(4/4) TC7WU04FU(TE12R)
IC211(3/3) TC74VHC221AFS(EL)
IC212(3/3) TC74VHC221AFS(EL)
IC213(2/2) TC4W53FU(TE12R)
SW 5V-2
5V
Vcc GND
206 207 208 209 210 211 212 213
C232 0.022
C234 0.022
C235 0.022
C236 0.022
C237 0.022
C238 0.022
C239 0.022
SW -5V-2
IC210(2/4) TC7WU04FU(TE12R)
IC210(3/4) TC7WU04FU(TE12R)
TP204
IC211(1/3) TC74VHC221AFS(EL)
IC211(2/3) TC74VHC221AFS(EL)
R265 820 :RN
TH200 1-809-308-21
RV206 20k
C256 22p
R263 82k :RN
RV207 20k
C258 47p
R266 27k :RN
Y REF SYNC 1-17
CN1
*2 R280 10k
*2 C280 47p
C275 100p
METAL/OXIDE 2/2
RV208 5k
R264 33k
*1 R271 820k
RV209 5k
R262 33k
*1 R270 820k
C257 47p
RV210 5k
C259 47p
R267 27k :RN
C REF SYNC 2/2
R268 10k
Y CLAMP 1-18
C CLAMP 2/2
IC213(1/2) TC4W53FU(TE12R)
IC212(1/3) TC74VHC221AFS(EL)
IC212(2/3) TC74VHC221AFS(EL)
RV206: Y REF SYNC POSITION
RV208: C REF SYNC POSITION(OXIDE)
RV209: C REF SYNC POSITION(METAL)
RV207: Y REF SYNC WIDTH
RV210: C REF SYNC WIDTH

VDA-11 (1/2) BOARD

1-625-541-17
BVW-400A (J) ;#30936-
BVW-400A (UC) ;#11054-

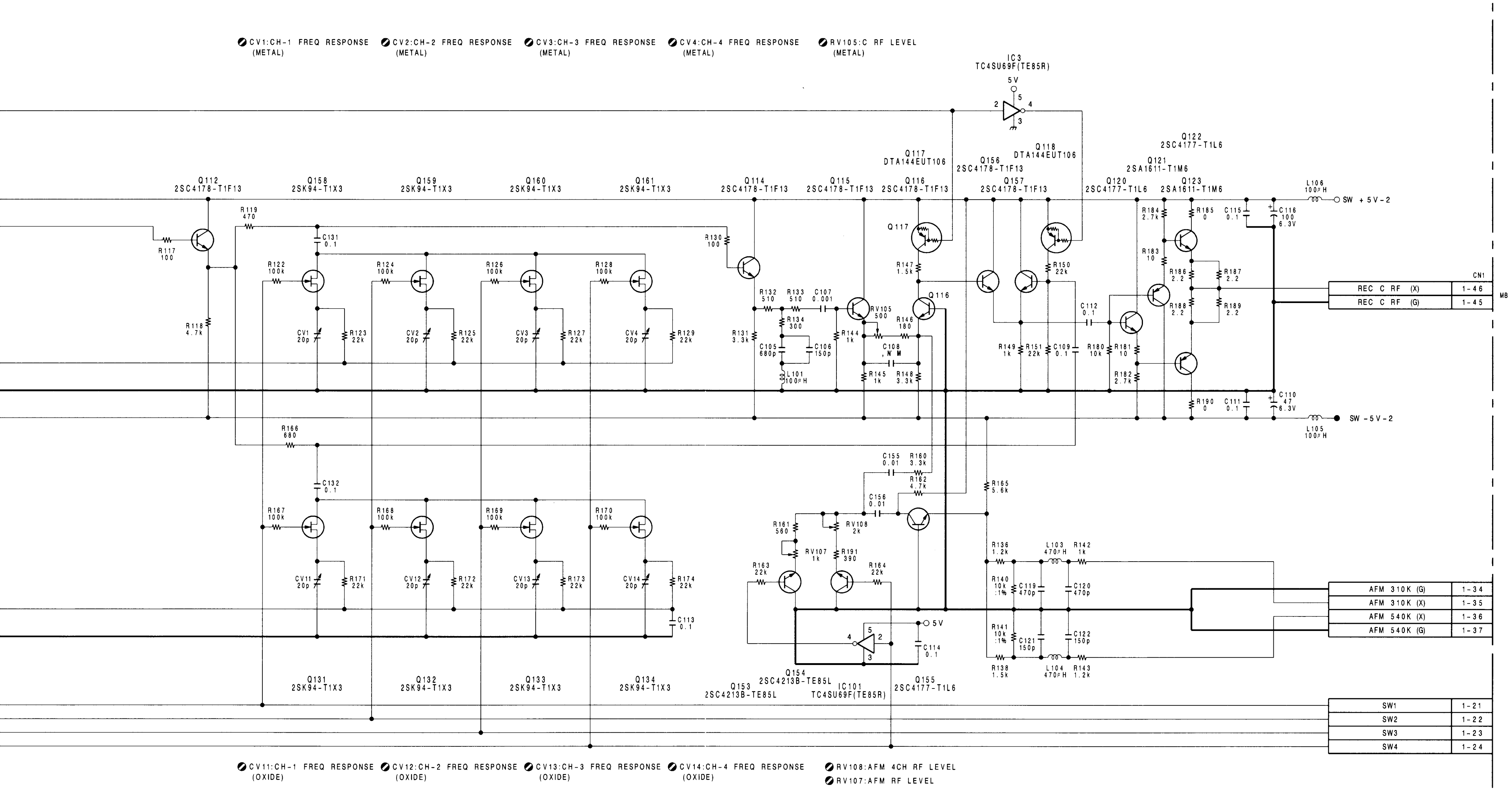
VDA-11 (2/2); CTDM AND C-MODULATOR

S/N J ; 30936 and higher
UC ; 11054 and higher


CN1
MB
1-4 +9V
1-3 +9V
9V
5V
1-48 +5V
1-47 +5V
1-2 GND
1-1 GND
1-14 H:POWER SAVE
IC301(2/2) TC4W53FU(TE12R)
IC301(1/2) TC4W53FU(TE12R)
C301 0.1
R304 2.2k
R305 2.7k
Q303 2SC2873Y-TE12L
1-50 -5V
1-49 -5V
1-30 SW +9V
1-29 SW +9V
1-28 SW +5V
1-27 SW +5V
1-26 SW -5V
1-25 SW -5V
-5V
SW+ 5V-2
SW -5V-2
1/2 METAL/OXIDE
1-15 METAL/ OXIDE
1-16 L:REC ON
IC1 TC4SU69F(TE85R)
Q10 DTC144EUT106
Q12 DTA144EUT106
Q1 DTC144EUT106
Q2 DTC144EUT106
RV1:LOW CLIP
RV2:HIGH CLIP
RV3:CARRIER SET(METAL)
RV4:CARRIER SET(OXIDE)
RV101:CH-1 RF LEVEL
RV102:CH-2 RF LEVEL
RV103:CH-3 RF LEVEL
RV104:CH-4 RF LEVEL
IC2 SBX1524-21
Vcc1 CLAMP IN GND1 TP2 LOW CLIP HIGH CLIP CARR SET GND3 RF OUT Vcc2
R-SYNC VITC IN -5V VIDEO IN GND2 AMP1 MIX1 TP1 LIM OUT AM IN
1/2 C CLAMP
1/2 C REF SYNC
1/2 CTDM
RV5:C REF SYNC LEVEL
RV6:NON-LINEAR EMPHASIS LEVEL
RV7:SLICE LEVEL
RV10:CTDM LEVEL
FL1 LPF
FL2
Q13 2SC4177-T1L6
Q3 2SC4177-T1L6
Q5 2SC4177-T1L6
Q6 2SC4177-T1L6
Q7 2SA1611-T1M6
Q8 2SC4178-T1F13
Q11 2SC4178-T1F13
Q9 2SA1611-T1M6
Q101 2SC4178-T1F13
Q106 2SC4178-T1F13
Q107 2SC4178-T1F13
Q108 2SK94-T1X3
Q109 2SK94-T1X3
Q110 2SK94-T1X3
Q111 2SK94-T1X3
CNJ2 2P
CN2 2P
TP1 TP2 TP3 TP4 TP5 TP6 TP10
E1
L1 100μH
L2 100μH
L3 10μH
SW+ 5V-2
SW -5V-2

1
2
3
4
5

A B C D E F G H

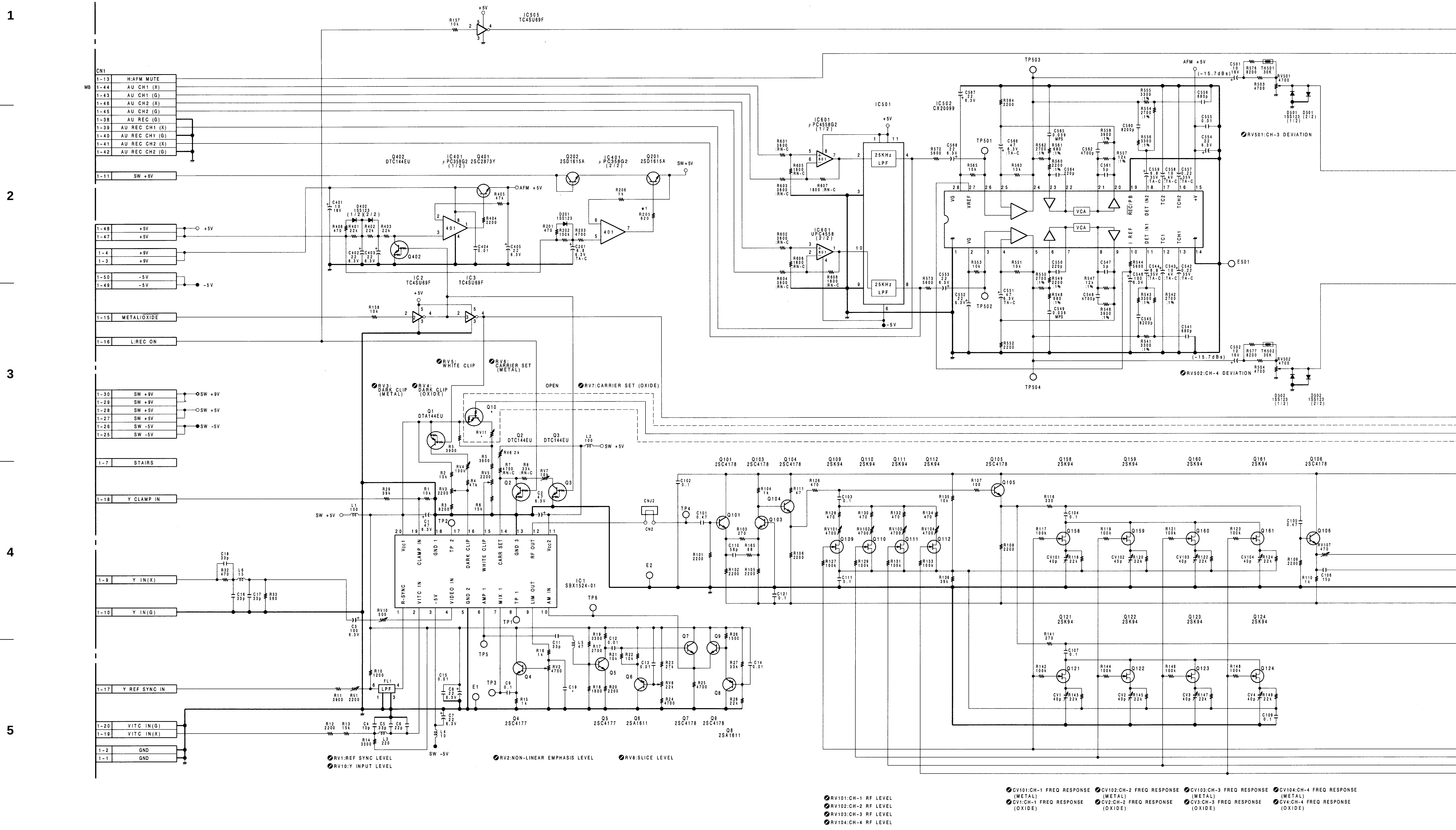

CV1:CH-1 FREQ RESPONSE (METAL)
CV2:CH-2 FREQ RESPONSE (METAL)
CV3:CH-3 FREQ RESPONSE (METAL)
CV4:CH-4 FREQ RESPONSE (METAL)
RV105:C RF LEVEL (METAL)
IC3 TC4SU69F(TE85R)
5V
Q117 DTA144EUT106
Q118 DTA144EUT106
Q156 2SC4178-T1F13
Q122 2SC4177-T1L6
Q121 2SA1611-T1M6
Q112 2SC4178-T1F13
Q158 2SK94-T1X3
Q159 2SK94-T1X3
Q160 2SK94-T1X3
Q161 2SK94-T1X3
Q114 2SC4178-T1F13
Q115 2SC4178-T1F13
Q116 2SC4178-T1F13
Q157 2SC4178-T1F13
Q120 2SC4177-T1L6
Q123 2SA1611-T1M6
L106 100µH
SW +5V-2
C116 100 6.3V
C110 47 6.3V
L105 100µH
SW -5V-2
CN1
MB
REC C RF (X) 1-46
REC C RF (G) 1-45
AFM 310K (G) 1-34
AFM 310K (X) 1-35
AFM 540K (X) 1-36
AFM 540K (G) 1-37
SW1 1-21
SW2 1-22
SW3 1-23
SW4 1-24
Q131 2SK94-T1X3
Q132 2SK94-T1X3
Q133 2SK94-T1X3
Q134 2SK94-T1X3
Q154 2SC4213B-TE85L
Q153 2SC4213B-TE85L
IC101 TC4SU69F(TE85R)
Q155 2SC4177-T1L6
CV11:CH-1 FREQ RESPONSE (OXIDE)
CV12:CH-2 FREQ RESPONSE (OXIDE)
CV13:CH-3 FREQ RESPONSE (OXIDE)
CV14:CH-4 FREQ RESPONSE (OXIDE)
RV108:AFM 4CH RF LEVEL
RV107:AFM RF LEVEL

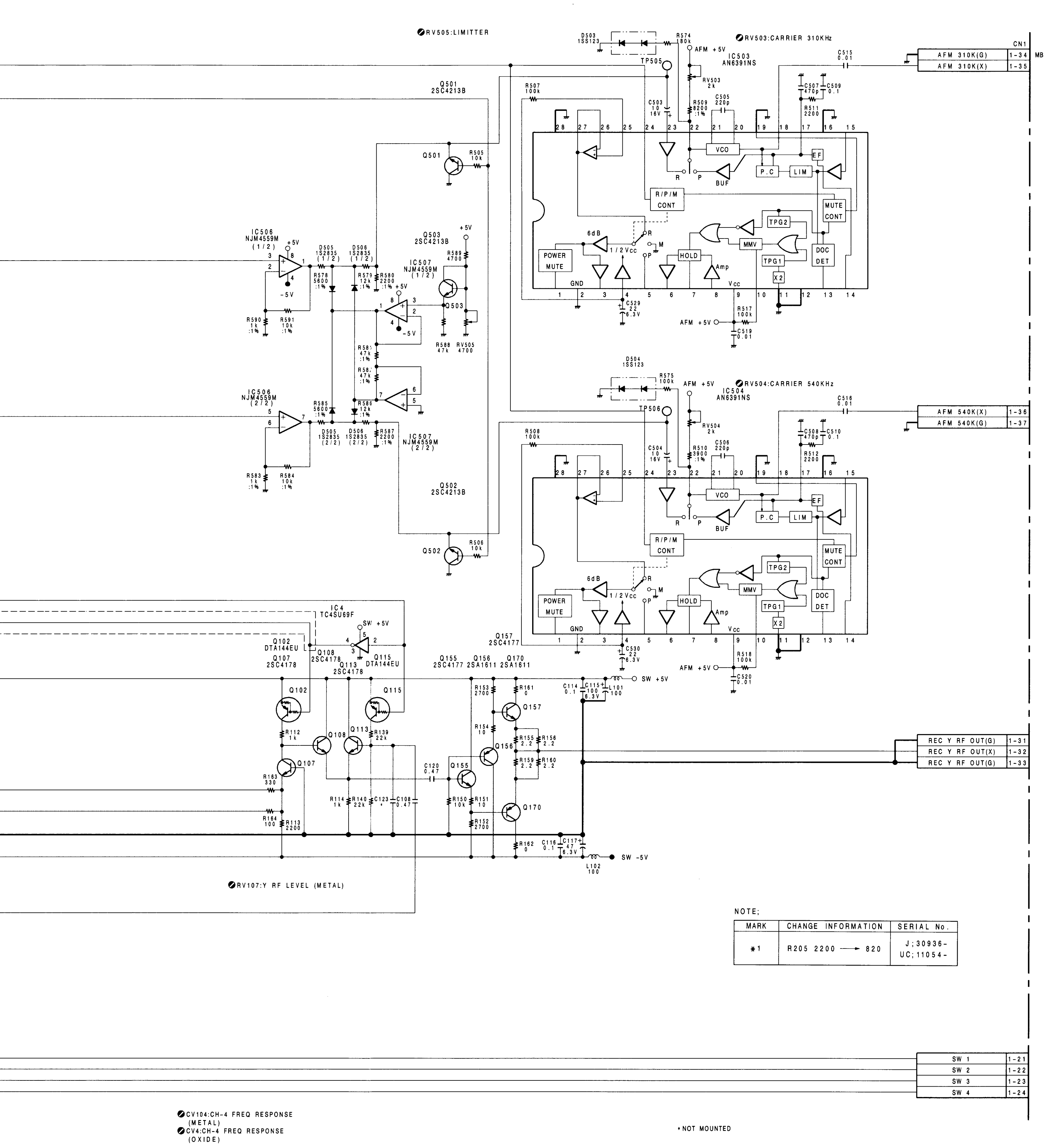
VDA-11 (2/2) BOARD

1-625-541-17
BVW-400A (J) ;#30936-
BVW-400A (UC) ;#11054-

(Page 11-61 to 63 are missing.)

AFM-6; Y-MODULATOR, AFM


CN1
MB
1-13 H:AFM MUTE
1-44 AU CH1 (X)
1-43 AU CH1 (G)
1-46 AU CH2 (X)
1-45 AU CH2 (G)
1-38 AU REC (G)
1-39 AU REC CH1 (X)
1-40 AU REC CH1 (G)
1-41 AU REC CH2 (X)
1-42 AU REC CH2 (G)
1-11 SW +6V
1-48 +5V
1-47 +5V
1-4 +9V
1-3 +9V
1-50 -5V
1-49 -5V
1-15 METAL/OXIDE
1-16 L:REC ON
1-30 SW +9V
1-29 SW +9V
1-28 SW +5V
1-27 SW +5V
1-26 SW -5V
1-25 SW -5V
1-7 STAIRS
1-18 Y CLAMP IN
1-9 Y IN(X)
1-10 Y IN(G)
1-17 Y REF SYNC IN
1-20 VITC IN(G)
1-19 VITC IN(X)
1-2 GND
1-1 GND
IC505 TC4S69F
IC401 μPC358G2 (1/2)
IC401 μPC358G2 (2/2)
Q401 2SC2873Y
Q402 DTC144EU
Q202 2SD1615A
Q201 2SD1615A
IC2 TC4S69F
IC3 TC4S69F
IC601 μPC4558G2 (1/2)
IC601 UPC4558 (2/2)
IC501
IC502 CX20099
25KHz LPF
VCA
TP501
TP502
TP503
TP504
E501
AFM +5V
(-15.7dBs)
RV501:CH-3 DEVIATION
RV502:CH-4 DEVIATION
D501 1SS123 (1/2) (2/2)
D502 1SS123 (1/2) (2/2)
TH501 30K
TH502 30K
RV3: DARK CLIP (METAL)
RV4: DARK CLIP (OXIDE)
RV5: WHITE CLIP
RV6: CARRIER SET (METAL)
RV7:CARRIER SET (OXIDE)
OPEN
Q1 DTA144EU
Q10
Q2 DTC144EU
Q3 DTC144EU
IC1 SBX1524-01
Vcc1
CLAMP IN
GND 1
TP 2
DARK CLIP
WHITE CLIP
CARR SET
GND 3
RF OUT
Vcc2
R-SYNC
VITC IN
-5V
VIDEO IN
GND 2
AMP 1
MIX 1
TP 1
LIM OUT
AM IN
CNJ2
CN2
TP1
TP2
TP3
TP4
TP5
TP6
E1
E2
FL1 LPF
SW +5V
SW -5V
Q4 2SC4177
Q5 2SC4177
Q6 2SA1611
Q7 2SC4178
Q8 2SA1611
Q9 2SC4178
Q101 2SC4178
Q103 2SC4178
Q104 2SC4178
Q109 2SK94
Q110 2SK94
Q111 2SK94
Q112 2SK94
Q105 2SC4178
Q158 2SK94
Q159 2SK94
Q160 2SK94
Q161 2SK94
Q106 2SC4178
Q121 2SK94
Q122 2SK94
Q123 2SK94
Q124 2SK94
RV1:REF SYNC LEVEL
RV10:Y INPUT LEVEL
RV2:NON-LINEAR EMPHASIS LEVEL
RV8:SLICE LEVEL
RV101:CH-1 RF LEVEL
RV102:CH-2 RF LEVEL
RV103:CH-3 RF LEVEL
RV104:CH-4 RF LEVEL
CV101:CH-1 FREQ RESPONSE (METAL)
CV1:CH-1 FREQ RESPONSE (OXIDE)
CV102:CH-2 FREQ RESPONSE (METAL)
CV2:CH-2 FREQ RESPONSE (OXIDE)
CV103:CH-3 FREQ RESPONSE (METAL)
CV3:CH-3 FREQ RESPONSE (OXIDE)
CV104:CH-4 FREQ RESPONSE (METAL)
CV4:CH-4 FREQ RESPONSE (OXIDE)
1
2
3
4
5
A
B
C
D
E
F
G
H


RV505:LIMITTER
D503 1SS123
R574 180k
AFM +5V
RV503:CARRIER 310KHz
IC503 AN6391NS
TP505
CN1
AFM 310K(G) 1-34
AFM 310K(X) 1-35
MB
C515 0.01
Q501 2SC4213B
R505 10k
VCO
BUF
P.C
LIM
EF
R/P/M CONT
MUTE CONT
TPG2
TPG1
MMV
HOLD
DOC DET
POWER MUTE
GND
Vcc
6dB
1/2 Vcc
Amp
X2
IC506 NJM4559M (1/2)
IC507 NJM4559M (1/2)
Q503 2SC4213B
RV505 4700
D505 1S2835
D506 1S2835
IC506 NJM4559M (2/2)
IC507 NJM4559M (2/2)
Q502 2SC4213B
R506 10k
D504 1SS123
R575 100k
RV504:CARRIER 540KHz
IC504 AN6391NS
TP506
AFM 540K(X) 1-36
AFM 540K(G) 1-37
C516 0.01
IC4 TC4SU69F
SW +5V
Q102 DTA144EU
Q107 2SC4178
Q108 2SC4178
Q113 2SC4178
Q115 DTA144EU
Q155 2SC4177
Q156 2SA1611
Q170 2SA1611
Q157 2SC4177
L101 100
L102 100
SW +5V
SW -5V
REC Y RF OUT(G) 1-31
REC Y RF OUT(X) 1-32
REC Y RF OUT(G) 1-33
RV107:Y RF LEVEL (METAL)
SW 1 1-21
SW 2 1-22
SW 3 1-23
SW 4 1-24
CV104:CH-4 FREQ RESPONSE (METAL)
CV4:CH-4 FREQ RESPONSE (OXIDE)
*NOT MOUNTED

NOTE;

MARK	CHANGE INFORMATION	SERIAL No.
*1	R205 2200 ⟶ 820	J;30936- UC;11054-

AFM-6 BOARD

1-625-542-17
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-

(Page 11-67 to 69 are missing.)

VP-24; VIDEO PB

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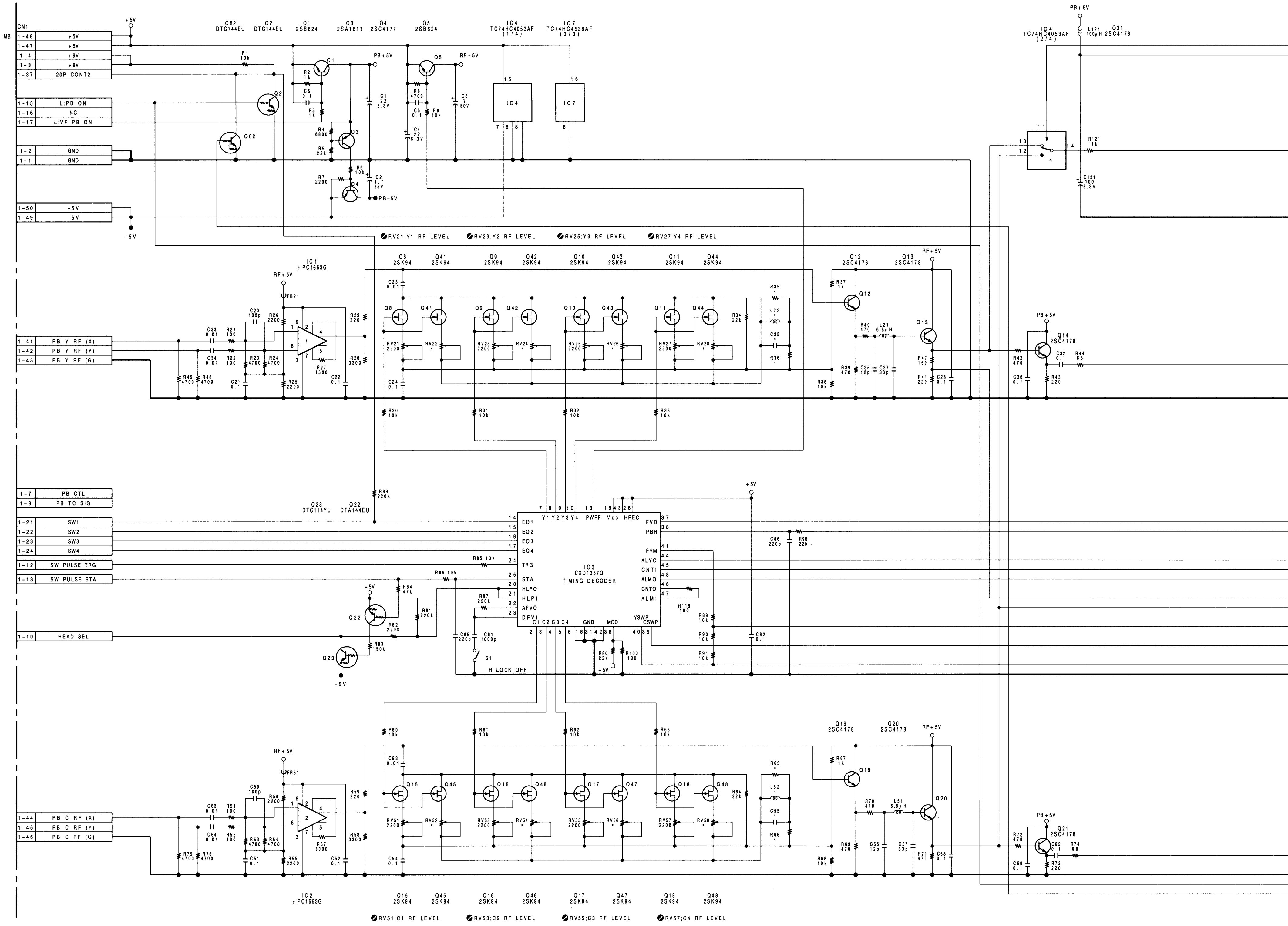
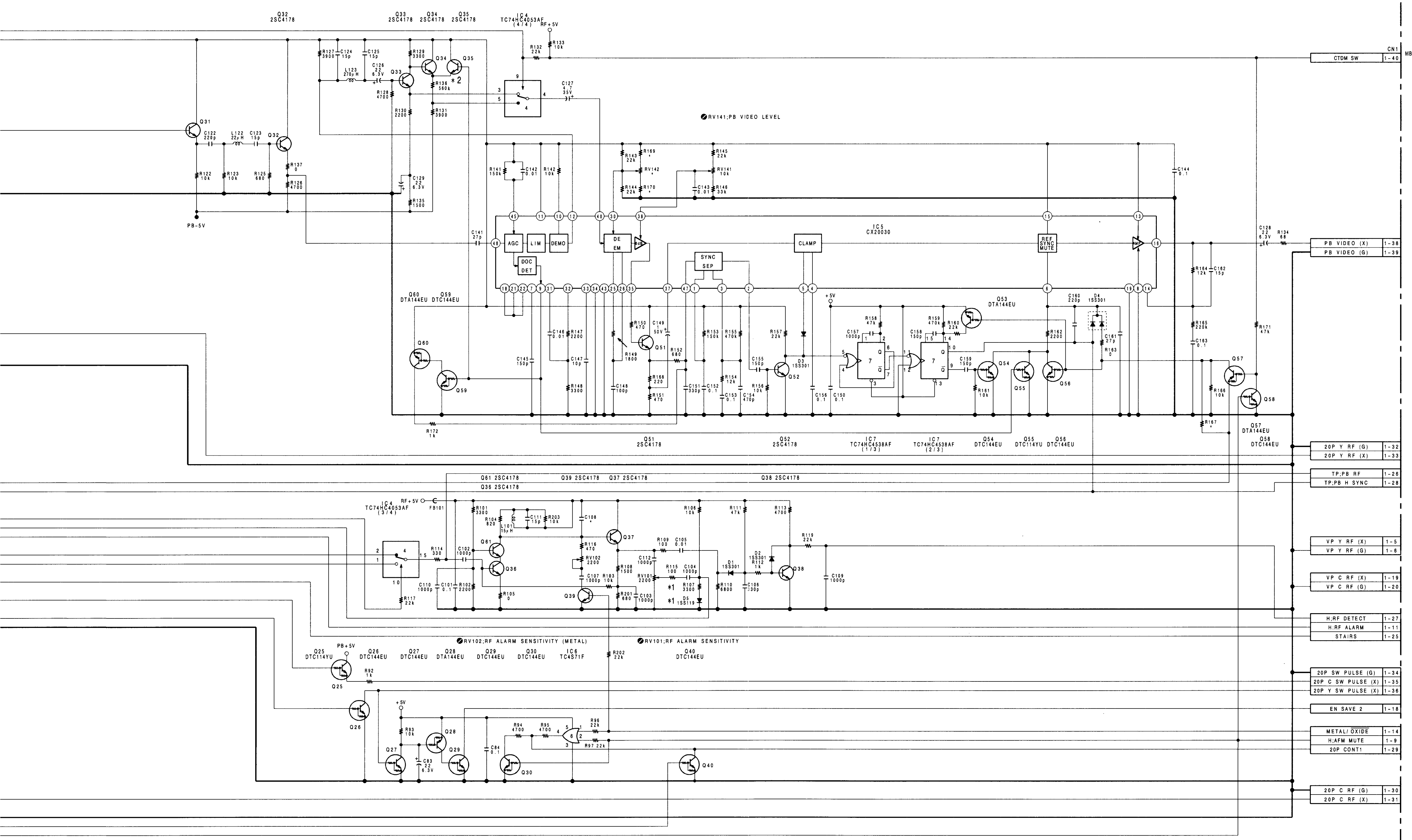

CN1
MB
1-48 +5V
1-47 +5V
1-4 +9V
1-3 +9V
1-37 20P CONT2
1-15 L:PB ON
1-16 NC
1-17 L:VF PB ON
1-2 GND
1-1 GND
1-50 -5V
1-49 -5V
1-41 PB Y RF (X)
1-42 PB Y RF (Y)
1-43 PB Y RF (G)
1-7 PB CTL
1-8 PB TC SIG
1-21 SW1
1-22 SW2
1-23 SW3
1-24 SW4
1-12 SW PULSE TRG
1-13 SW PULSE STA
1-10 HEAD SEL
1-44 PB C RF (X)
1-45 PB C RF (Y)
1-46 PB C RF (G)
Q62 DTC144EU
Q2 DTC144EU
Q1 2SB624
Q3 2SA1511
Q4 2SC4177
Q5 2SB624
IC4 TC74HC4053AF (1/4)
IC7 TC74HC4538AF (3/3)
IC4 TC74HC4053AF (2/4)
L121 100μH
Q31 2SC4178
PB+5V
RF+5V
PB-5V
-5V
+5V
IC1 μPC1663G
IC2 μPC1663G
RV21;Y1 RF LEVEL
RV23;Y2 RF LEVEL
RV25;Y3 RF LEVEL
RV27;Y4 RF LEVEL
Q8 2SK94
Q41 2SK94
Q9 2SK94
Q42 2SK94
Q10 2SK94
Q43 2SK94
Q11 2SK94
Q44 2SK94
Q12 2SC4178
Q13 2SC4178
Q14 2SC4178
Q23 DTC114YU
Q22 DTA144EU
IC3 CXD1357Q TIMING DECODER
EQ1
EQ2
EQ3
EQ4
TRG
STA
HLPO
HLPI
AFVO
DFVI
Y1 Y2 Y3 Y4
PWRF
Vcc
HREC
FVD
PBH
FRM
ALYC
CNTI
ALMO
CNTO
ALMI
YSWP
CSWP
C1 C2 C3 C4
GND
MOD
S1
H LOCK OFF
Q19 2SC4178
Q20 2SC4178
Q21 2SC4178
Q15 2SK94
Q45 2SK94
Q16 2SK94
Q46 2SK94
Q17 2SK94
Q47 2SK94
Q18 2SK94
Q48 2SK94
RV51;C1 RF LEVEL
RV53;C2 RF LEVEL
RV55;C3 RF LEVEL
RV57;C4 RF LEVEL

A B C D E F G H


1
2
3
4
5
Q32 2SC4178
Q33 2SC4178
Q34 2SC4178
Q35 2SC4178
IC4 TC74HC4053AF (4/4)
RF+5V
RV141;PB VIDEO LEVEL
IC5 CX20030
AGC
LIM
DEMO
DE EM
DOC DET
SYNC SEP
CLAMP
REF SYNC MUTE
PB-5V
Q60 DTA144EU
Q59 DTC144EU
Q51 2SC4178
Q52 2SC4178
IC7 TC74HC4538AF (1/3)
IC7 TC74HC4538AF (2/3)
Q53 DTA144EU
Q54 DTC144EU
Q55 DTC114YU
Q56 DTC144EU
Q57 DTA144EU
Q58 DTC144EU
Q61 2SC4178
Q36 2SC4178
Q39 2SC4178
Q37 2SC4178
Q38 2SC4178
IC4 TC74HC4053AF (3/4)
RV102;RF ALARM SENSITIVITY (METAL)
RV101;RF ALARM SENSITIVITY
Q25 DTC114YU
Q26 DTC144EU
Q27 DTC144EU
Q28 DTA144EU
Q29 DTC144EU
Q30 DTC144EU
IC6 TC4S71F
Q40 DTC144EU
PB+5V
+5V
CN1
MB
CTDM SW 1-40
PB VIDEO (X) 1-38
PB VIDEO (G) 1-39
20P Y RF (G) 1-32
20P Y RF (X) 1-33
TP;PB RF 1-26
TP;PB H SYNC 1-28
VP Y RF (X) 1-5
VP Y RF (G) 1-6
VP C RF (X) 1-19
VP C RF (G) 1-20
H;RF DETECT 1-27
H:RF ALARM 1-11
STAIRS 1-25
20P SW PULSE (G) 1-34
20P C SW PULSE (X) 1-35
20P Y SW PULSE (X) 1-36
EN SAVE 2 1-18
METAL/ OXIDE 1-14
H;AFM MUTE 1-9
20P CONT1 1-29
20P C RF (G) 1-30
20P C RF (X) 1-31

MARK	CHANGE INFORMATION	SERIAL No.
*1	R107 4700 → 3300 D5 1SS119 ADDED	J:30216- UC:10158-
*2	R136 1K → 560	J:31086- UC:11364-

* NOT MOUNTED

VP-24 BOARD

1-625-543-14
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-

(Page 11-73 to 75 are missing.)

AU-97; AUDIO REC/PB, ERASE OSC

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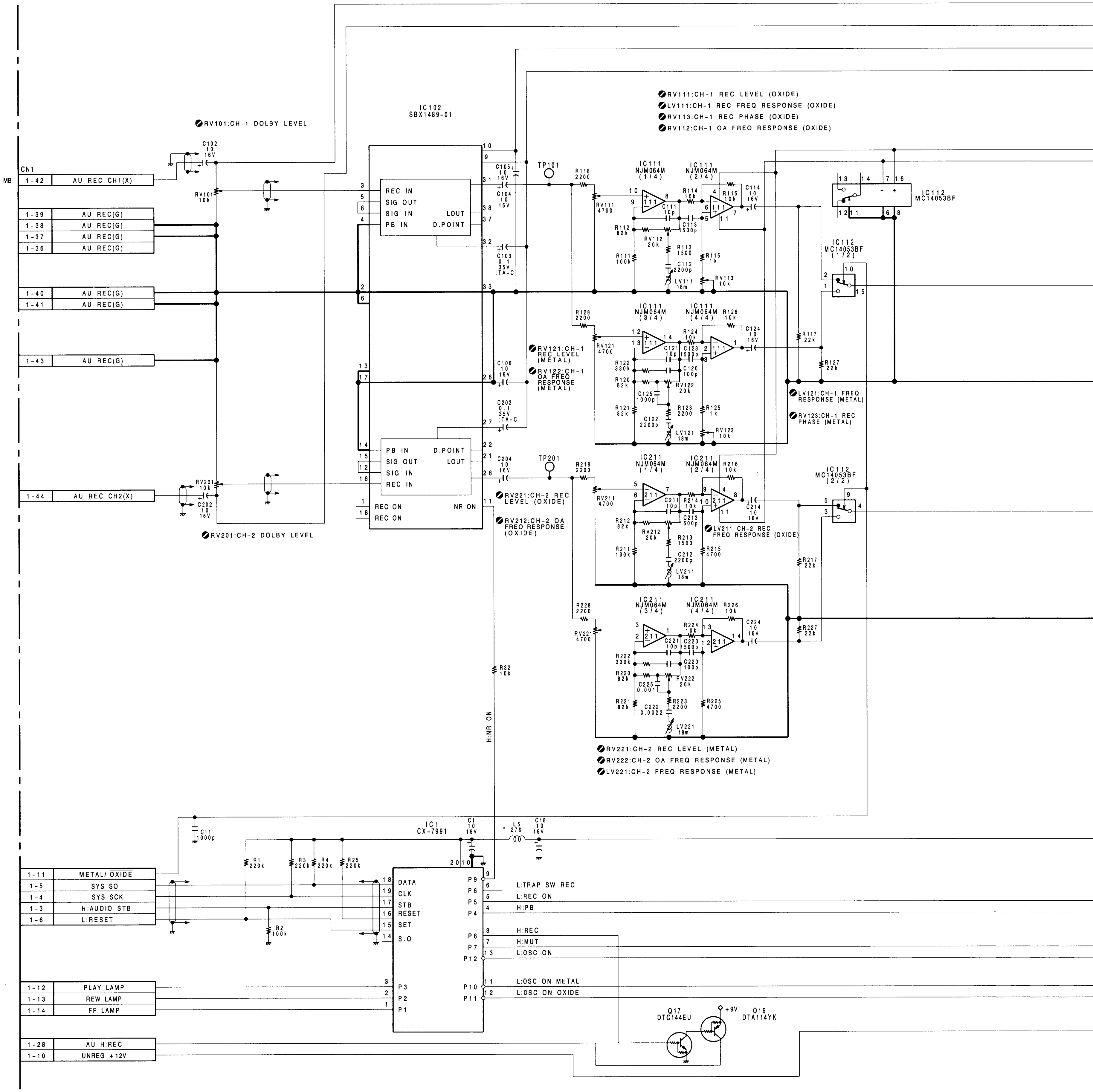
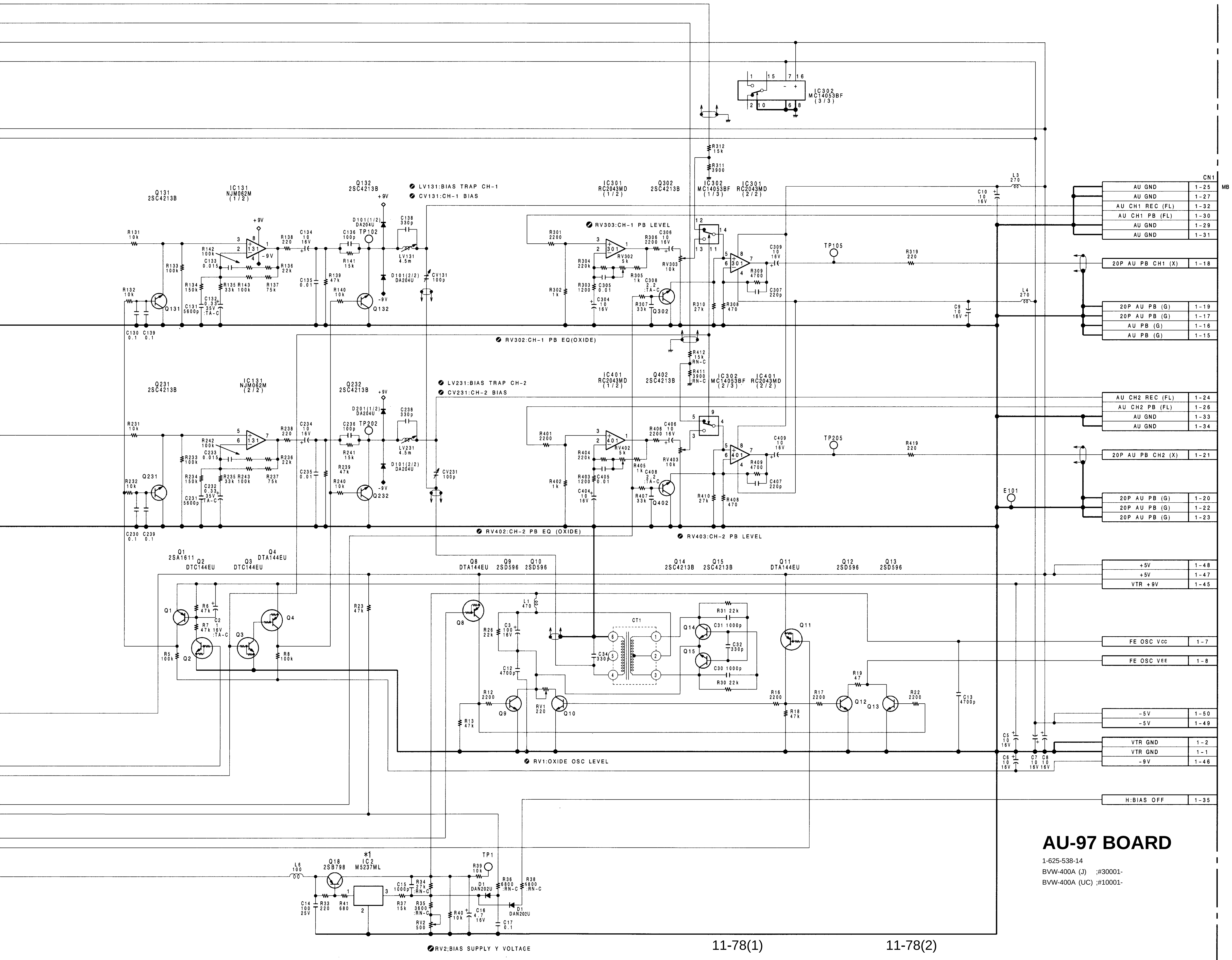
MARK	CHANGE INFORMATION	SERIAL No.
*1	IC2 M5236ML → M5237ML	J:30245- UC:10191-


MB
CN1
1-42 AU REC CH1(X)
1-39 AU REC(G)
1-38 AU REC(G)
1-37 AU REC(G)
1-36 AU REC(G)
1-40 AU REC(G)
1-41 AU REC(G)
1-43 AU REC(G)
1-44 AU REC CH2(X)
1-11 METAL/ OXIDE
1-5 SYS SO
1-4 SYS SCK
1-3 H:AUDIO STB
1-6 L:RESET
1-12 PLAY LAMP
1-13 REW LAMP
1-14 FF LAMP
1-28 AU H:REC
1-10 UNREG +12V
RV101:CH-1 DOLBY LEVEL
RV201:CH-2 DOLBY LEVEL
IC102 SBX1489-01
REC IN
SIG OUT
SIG IN
PB IN
LOUT
D.POINT
REC ON
NR ON
TP101
TP201
IC111 NJM064M
IC211 NJM064M
IC112 MC14053BF
RV111:CH-1 REC LEVEL (OXIDE)
LV111:CH-1 REC FREQ RESPONSE (OXIDE)
RV113:CH-1 REC PHASE (OXIDE)
RV112:CH-1 OA FREQ RESPONSE (OXIDE)
RV121:CH-1 REC LEVEL (METAL)
RV122:CH-1 OA FREQ RESPONSE (METAL)
LV121:CH-1 FREQ RESPONSE (METAL)
RV123:CH-1 REC PHASE (METAL)
RV221:CH-2 REC LEVEL (OXIDE)
RV212:CH-2 OA FREQ RESPONSE (OXIDE)
LV211 CH-2 REC FREQ RESPONSE (OXIDE)
RV221:CH-2 REC LEVEL (METAL)
RV222:CH-2 OA FREQ RESPONSE (METAL)
LV221:CH-2 FREQ RESPONSE (METAL)
H:NR ON
IC1 CX-7991
DATA
CLK
STB
RESET
SET
S.O
L:TRAP SW REC
L:REC ON
H:PB
H:REC
H:MUT
L:OSC ON
L:OSC ON METAL
L:OSC ON OXIDE
Q17 DTC144EU
Q16 DTA114YK
+9V

A B C D E F G H

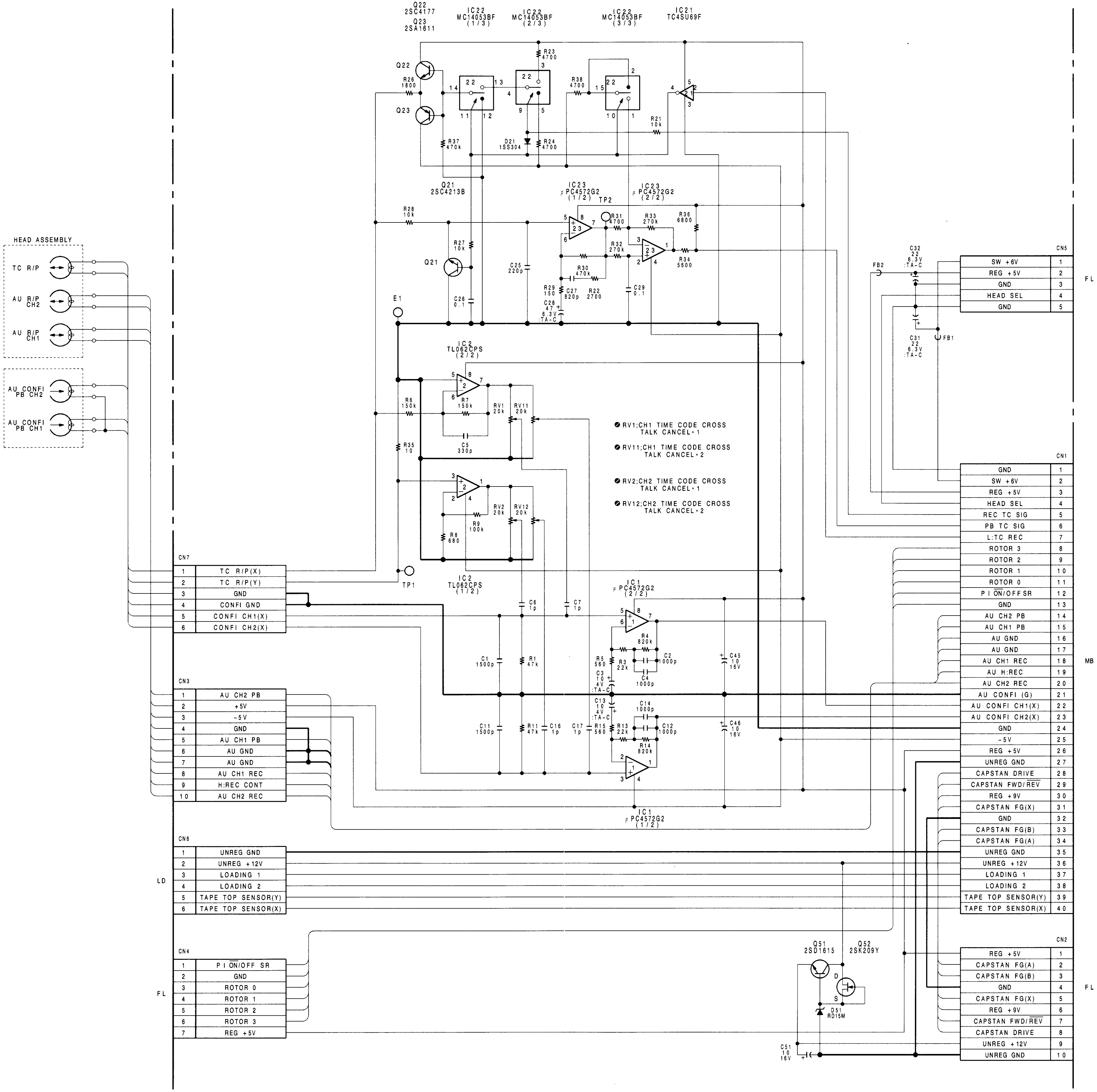

CN1
MB
AU GND 1-25
AU GND 1-27
AU CH1 REC (FL) 1-32
AU CH1 PB (FL) 1-30
AU GND 1-29
AU GND 1-31
20P AU PB CH1 (X) 1-18
20P AU PB (G) 1-19
20P AU PB (G) 1-17
AU PB (G) 1-16
AU PB (G) 1-15
AU CH2 REC (FL) 1-24
AU CH2 PB (FL) 1-26
AU GND 1-33
AU GND 1-34
20P AU PB CH2 (X) 1-21
20P AU PB (G) 1-20
20P AU PB (G) 1-22
20P AU PB (G) 1-23
+5V 1-48
+5V 1-47
VTR +9V 1-45
FE OSC Vcc 1-7
FE OSC VEE 1-8
-5V 1-50
-5V 1-49
VTR GND 1-2
VTR GND 1-1
-9V 1-46
H:BIAS OFF 1-35
IC302 MC14053BF (3/3)
Q131 2SC4213B
IC131 NJM062M (1/2)
Q132 2SC4213B
LV131:BIAS TRAP CH-1
CV131:CH-1 BIAS
IC301 RC2043MD (1/2)
Q302 2SC4213B
IC302 MC14053BF (1/3)
IC301 RC2043MD (2/2)
RV303:CH-1 PB LEVEL
RV302:CH-1 PB EQ(OXIDE)
Q231 2SC4213B
IC131 NJM062M (2/2)
Q232 2SC4213B
LV231:BIAS TRAP CH-2
CV231:CH-2 BIAS
IC401 RC2043MD (1/2)
Q402 2SC4213B
IC302 MC14053BF (2/3)
IC401 RC2043MD (2/2)
RV402:CH-2 PB EQ (OXIDE)
RV403:CH-2 PB LEVEL
TP102
TP105
TP202
TP205
E101
Q1 2SA1611
Q2 DTC144EU
Q3 DTC144EU
Q4 DTA144EU
Q8 DTA144EU
Q9 2SD596
Q10 2SD596
Q14 2SC4213B
Q15 2SC4213B
Q11 DTA144EU
Q12 2SD596
Q13 2SD596
CT1
RV1:OXIDE OSC LEVEL
Q18 2SB798
*1 IC2 M5237ML
TP1
RV2:BIAS SUPPLY Y VOLTAGE
1
2
3
4
5
I
J
K
L
M
N
O
P

AU-97 BOARD

1-625-538-14
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-

(Page 11-79 and 80 are missing.)

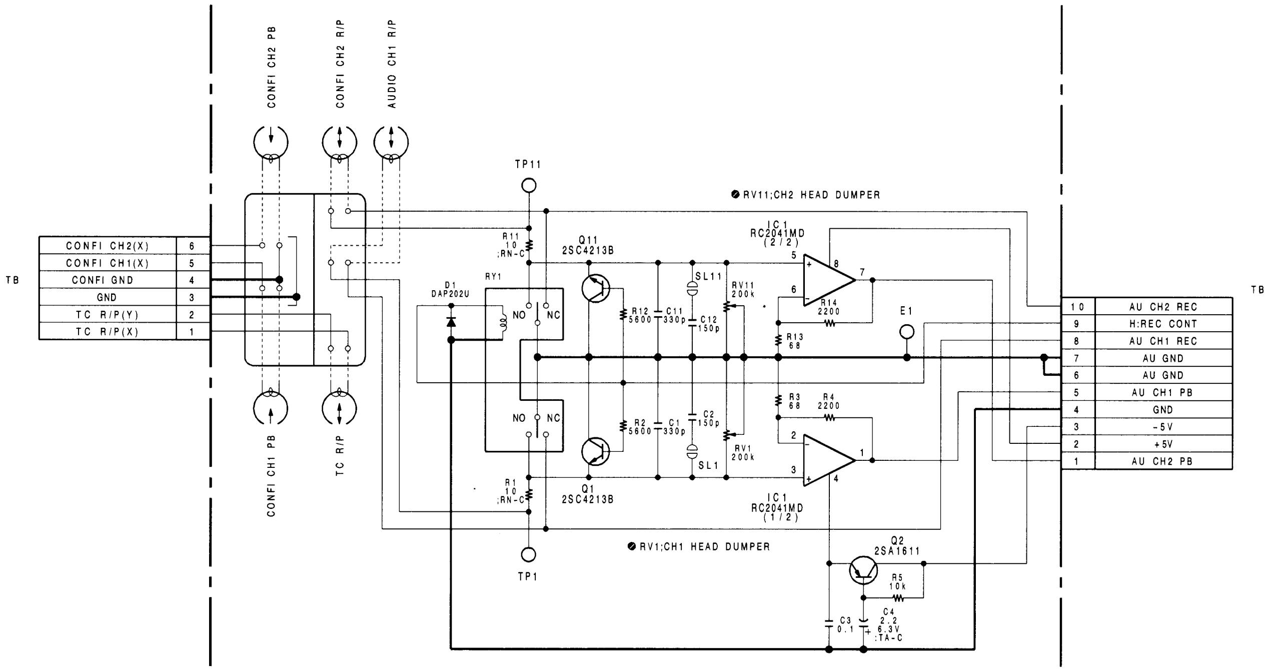
TB-5; TERMINAL BOARD, AUDIO CONFI


HEAD ASSEMBLY
TC R/P
AU R/P CH2
AU R/P CH1
AU CONFI PB CH2
AU CONFI PB CH1
Q22 2SC4177
Q23 2SA1611
IC22 MC14053BF (1/3)
IC22 MC14053BF (2/3)
IC22 MC14053BF (3/3)
IC21 TC4SU69F
Q21 2SC4213B
IC23 μPC4572G2 (1/2)
IC23 μPC4572G2 (2/2)
TP2
E1
TP1
IC2 TL062CPS (2/2)
IC2 TL062CPS (1/2)
IC1 μPC4572G2 (2/2)
IC1 μPC4572G2 (1/2)
Q51 2SD1615
Q52 2SK209Y
D51 RD15M
D21 1SS304
FB1
FB2
C31 22 6.3V :TA-C
C32 22 6.3V :TA-C
C51 10 16V
RV1;CH1 TIME CODE CROSS TALK CANCEL·1
RV11;CH1 TIME CODE CROSS TALK CANCEL·2
RV2;CH2 TIME CODE CROSS TALK CANCEL·1
RV12;CH2 TIME CODE CROSS TALK CANCEL·2
CN7
1 TC R/P(X)
2 TC R/P(Y)
3 GND
4 CONFI GND
5 CONFI CH1(X)
6 CONFI CH2(X)
CN3
1 AU CH2 PB
2 +5V
3 -5V
4 GND
5 AU CH1 PB
6 AU GND
7 AU GND
8 AU CH1 REC
9 H:REC CONT
10 AU CH2 REC
CN6
LD
1 UNREG GND
2 UNREG +12V
3 LOADING 1
4 LOADING 2
5 TAPE TOP SENSOR(Y)
6 TAPE TOP SENSOR(X)
CN4
FL
1 P I ON/OFF SR
2 GND
3 ROTOR 0
4 ROTOR 1
5 ROTOR 2
6 ROTOR 3
7 REG +5V
CN5
FL
1 SW +6V
2 REG +5V
3 GND
4 HEAD SEL
5 GND
CN1
MB
1 GND
2 SW +6V
3 REG +5V
4 HEAD SEL
5 REC TC SIG
6 PB TC SIG
7 L:TC REC
8 ROTOR 3
9 ROTOR 2
10 ROTOR 1
11 ROTOR 0
12 P I ON/OFF SR
13 GND
14 AU CH2 PB
15 AU CH1 PB
16 AU GND
17 AU GND
18 AU CH1 REC
19 AU H:REC
20 AU CH2 REC
21 AU CONFI (G)
22 AU CONFI CH1(X)
23 AU CONFI CH2(X)
24 GND
25 -5V
26 REG +5V
27 UNREG GND
28 CAPSTAN DRIVE
29 CAPSTAN FWD/REV
30 REG +9V
31 CAPSTAN FG(X)
32 GND
33 CAPSTAN FG(B)
34 CAPSTAN FG(A)
35 UNREG GND
36 UNREG +12V
37 LOADING 1
38 LOADING 2
39 TAPE TOP SENSOR(Y)
40 TAPE TOP SENSOR(X)
CN2
FL
1 REG +5V
2 CAPSTAN FG(A)
3 CAPSTAN FG(B)
4 GND
5 CAPSTAN FG(X)
6 REG +9V
7 CAPSTAN FWD/REV
8 CAPSTAN DRIVE
9 UNREG +12V
10 UNREG GND

TB-5 BOARD

1-625-552-14
BVW-400A (J) ; #30001-
BVW-400A (UC) ; #10001-
BVW-400AP (EK) ; #40001-

FL-55; AUDIO HEAD AMP, RELAY BOARD

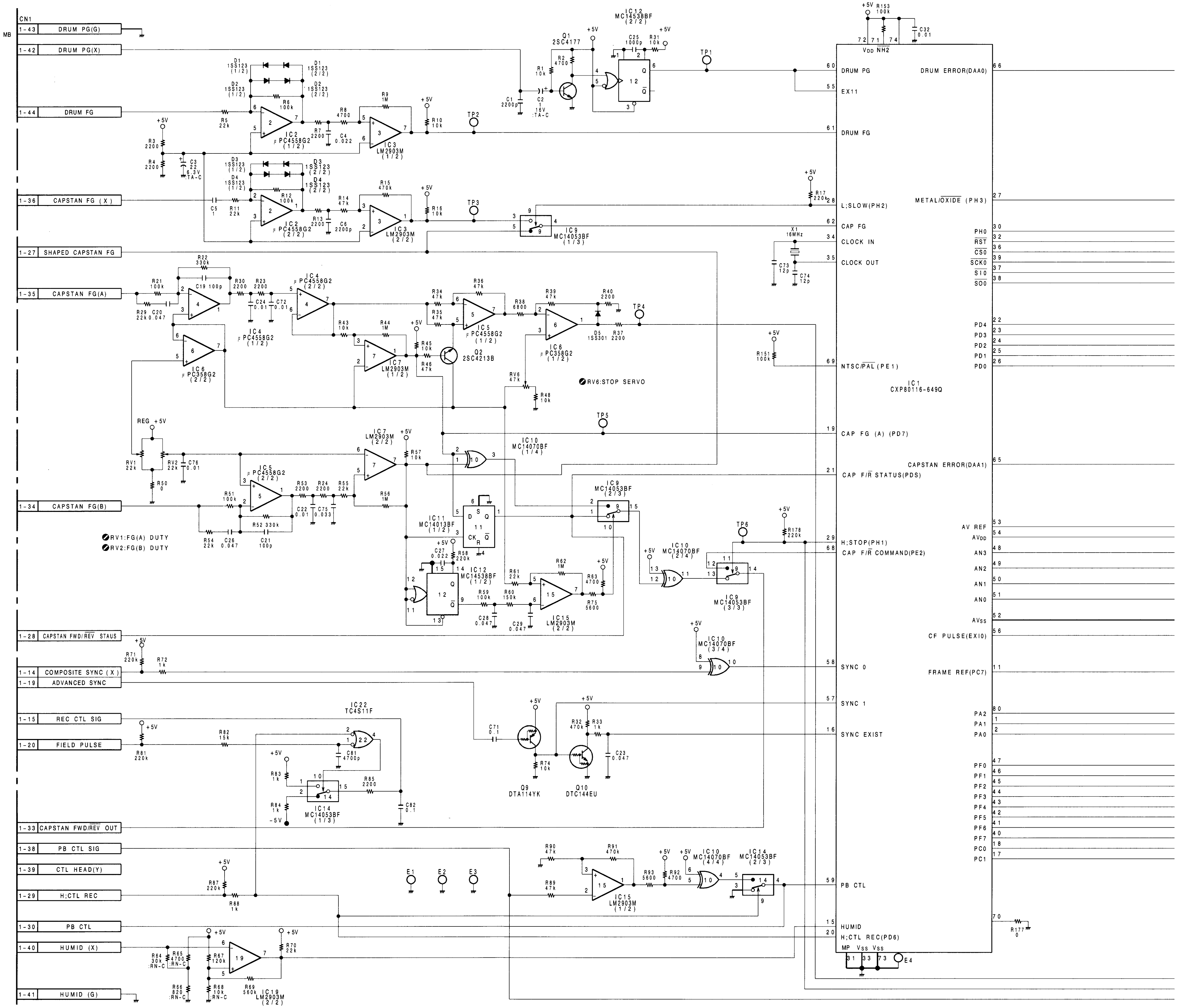

CONFI CH2 PB
CONFI CH2 R/P
AUDIO CH1 R/P
CONFI CH1 PB
TC R/P
TB
CONFI CH2(X) 6
CONFI CH1(X) 5
CONFI GND 4
GND 3
TC R/P(Y) 2
TC R/P(X) 1
TP11
TP1
R11 10 ;RN-C
R1 10 ;RN-C
D1 DAP202U
RY1
NO NC
NO NC
Q11 2SC4213B
Q1 2SC4213B
R12 5600
C11 330p
C12 150p
R2 5600
C1 330p
C2 150p
SL11
SL1
RV11 200k
RV1 200k
RV11;CH2 HEAD DUMPER
RV1;CH1 HEAD DUMPER
IC1 RC2041MD (2/2)
IC1 RC2041MD (1/2)
R14 2200
R13 68
R3 68
R4 2200
E1
Q2 2SA1611
R5 10k
C3 0.1
C4 2.2 6.3V :TA-C
TB
10 AU CH2 REC
9 H:REC CONT
8 AU CH1 REC
7 AU GND
6 AU GND
5 AU CH1 PB
4 GND
3 -5V
2 +5V
1 AU CH2 PB

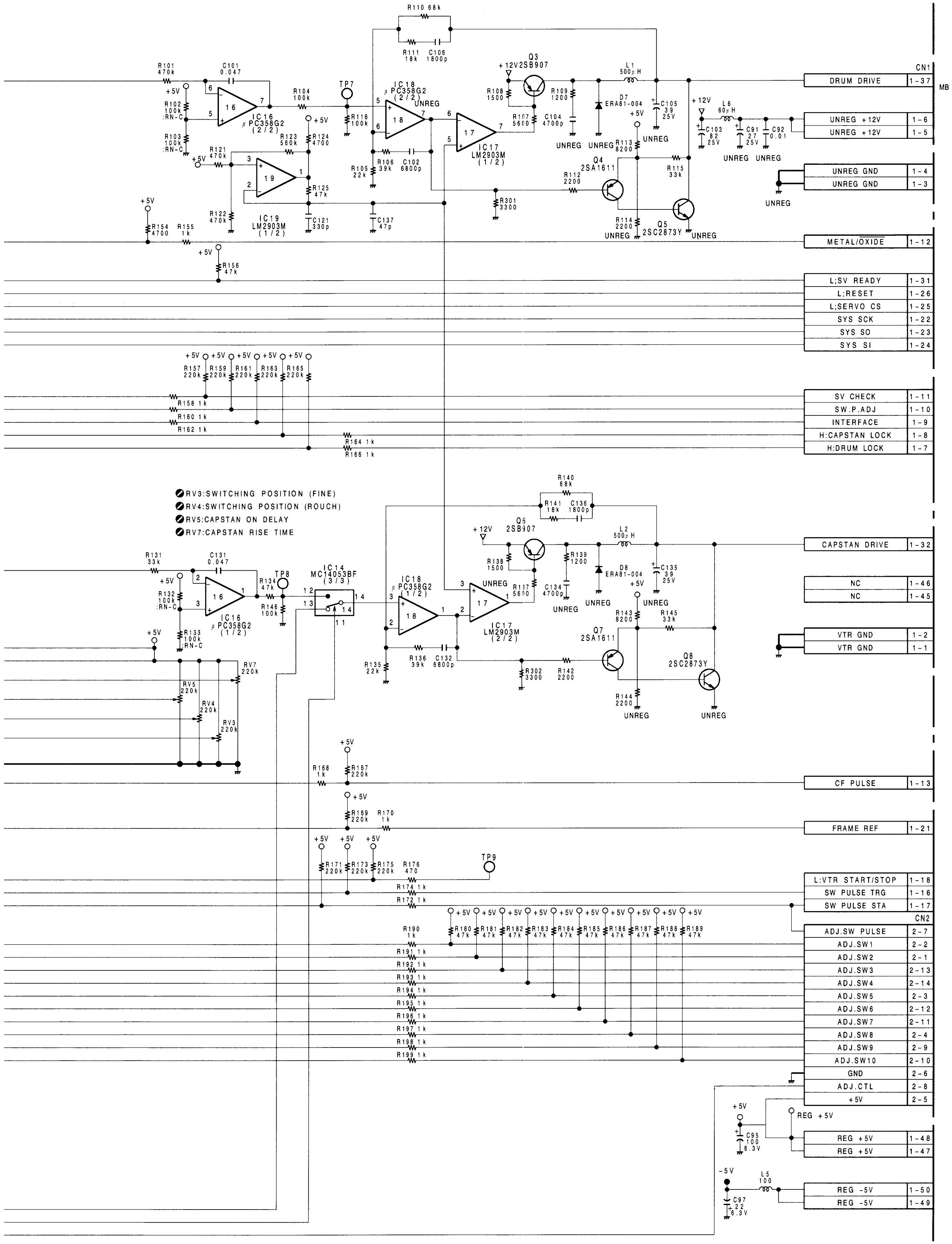
FL-55 BOARD

1-625-893-12
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-

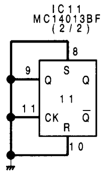
(Page 11-85 to 87 are missing.)

SV-97A; DRUM/CAPSTAN SERVO


CN1
MB
1-43 DRUM PG(G)
1-42 DRUM PG(X)
1-44 DRUM FG
1-36 CAPSTAN FG (X)
1-27 SHAPED CAPSTAN FG
1-35 CAPSTAN FG(A)
1-34 CAPSTAN FG(B)
1-28 CAPSTAN FWD/REV STAUS
1-14 COMPOSITE SYNC (X)
1-19 ADVANCED SYNC
1-15 REC CTL SIG
1-20 FIELD PULSE
1-33 CAPSTAN FWD/REV OUT
1-38 PB CTL SIG
1-39 CTL HEAD(Y)
1-29 H;CTL REC
1-30 PB CTL
1-40 HUMID (X)
1-41 HUMID (G)
IC2 μPC4558G2 (1/2)
IC2 μPC4558G2 (2/2)
IC3 LM2903M (1/2)
IC3 LM2903M (2/2)
IC4 μPC4558G2 (2/2)
IC4 μPC4558G2 (1/2)
IC5 μPC4558G2 (1/2)
IC5 μPC4558G2 (2/2)
IC6 μPC358G2 (1/2)
IC6 μPC358G2 (2/2)
IC7 LM2903M (1/2)
IC7 LM2903M (2/2)
IC9 MC14053BF (1/3)
IC9 MC14053BF (2/3)
IC9 MC14053BF (3/3)
IC10 MC14070BF (1/4)
IC10 MC14070BF (2/4)
IC10 MC14070BF (3/4)
IC10 MC14070BF (4/4)
IC11 MC14013BF (1/2)
IC12 MC14538BF (1/2)
IC12 MC14538BF (2/2)
IC14 MC14053BF (1/3)
IC14 MC14053BF (2/3)
IC15 LM2903M (1/2)
IC15 LM2903M (2/2)
IC19 LM2903M (2/2)
IC22 TC4S11F
Q1 2SC4177
Q2 2SC4213B
Q9 DTA114YK
Q10 DTC144EU
D1 1SS123
D2 1SS123
D3 1SS123
D4 1SS123
D5 1SS301
X1 16MHz
TP1
TP2
TP3
TP4
TP5
TP6
E1
E2
E3
E4
REG +5V
RV1 22k
RV2 22k
RV6 47k
RV6:STOP SERVO
RV1:FG(A) DUTY
RV2:FG(B) DUTY
+5V
-5V
IC1 CXP80116-649Q
VDD NH2
DRUM PG
EX11
DRUM FG
L;SLOW(PH2)
CAP FG
CLOCK IN
CLOCK OUT
NTSC/PAL (PE1)
CAP FG (A) (PD7)
CAP F/R STATUS(PDS)
H;STOP(PH1)
CAP F/R COMMAND(PE2)
SYNC 0
SYNC 1
SYNC EXIST
PB CTL
HUMID
H;CTL REC(PD6)
MP Vss Vss
DRUM ERROR(DAA0)
METAL/OXIDE (PH3)
PH0
RST
CS0
SCK0
SI0
SO0
PD4
PD3
PD2
PD1
PD0
CAPSTAN ERROR(DAA1)
AV REF
AVDD
AN3
AN2
AN1
AN0
AVss
CF PULSE(EXI0)
FRAME REF(PC7)
PA2
PA1
PA0
PF0
PF1
PF2
PF3
PF4
PF5
PF6
PF7
PC0
PC1
R177 0
R153 100k
C32 0.01
1
2
3
4
5
A
B
C
D
E
F
G
H


CN1
MB
DRUM DRIVE 1-37
UNREG +12V 1-6
UNREG +12V 1-5
UNREG GND 1-4
UNREG GND 1-3
METAL/OXIDE 1-12
L;SV READY 1-31
L;RESET 1-26
L;SERVO CS 1-25
SYS SCK 1-22
SYS SO 1-23
SYS SI 1-24
SV CHECK 1-11
SW.P.ADJ 1-10
INTERFACE 1-9
H:CAPSTAN LOCK 1-8
H:DRUM LOCK 1-7
CAPSTAN DRIVE 1-32
NC 1-46
NC 1-45
VTR GND 1-2
VTR GND 1-1
CF PULSE 1-13
FRAME REF 1-21
L:VTR START/STOP 1-18
SW PULSE TRG 1-16
SW PULSE STA 1-17
CN2
ADJ.SW PULSE 2-7
ADJ.SW1 2-2
ADJ.SW2 2-1
ADJ.SW3 2-13
ADJ.SW4 2-14
ADJ.SW5 2-3
ADJ.SW6 2-12
ADJ.SW7 2-11
ADJ.SW8 2-4
ADJ.SW9 2-9
ADJ.SW10 2-10
GND 2-6
ADJ.CTL 2-8
+5V 2-5
REG +5V 1-48
REG +5V 1-47
REG -5V 1-50
REG -5V 1-49
RV3:SWITCHING POSITION (FINE)
RV4:SWITCHING POSITION (ROUCH)
RV5:CAPSTAN ON DELAY
RV7:CAPSTAN RISE TIME
IC16 μPC358G2 (2/2)
IC16 μPC358G2 (1/2)
IC18 μPC358G2 (2/2)
IC18 μPC358G2 (1/2)
IC17 LM2903M (1/2)
IC17 LM2903M (2/2)
IC19 LM2903M (1/2)
IC14 MC14053BF (3/3)
Q3 2SB907
Q4 2SA1611
Q5 2SC2873Y
Q6 2SB907
Q7 2SA1611
Q8 2SC2873Y
D7 ERA81-004
D8 ERA81-004
L1 500μH
L2 500μH
L6 60μH
L5 100
TP7
TP8
TP9
UNREG
+12V
+5V
-5V
REG +5V

IC Ref	Parts No.	Vcc	VEE	Vss	PASS CON Ref
IC2	μPC4558G2	+5V/8P	GND/4P		C33 0.01
IC3	LM2903M	+5V/8P	GND/4P		C34 0.01
IC4	μPC4558G2	+5V/8P	GND/4P		C35 0.01
IC5	μPC4558G2	+5V/8P	GND/4P		C36 0.01
IC6	μPC358G2	+5V/8P	GND/4P		C37 0.01
IC7	LM2903M	+5V/8P	GND/4P		C38 0.01
IC9	MC14053BF	+5V/16P	GND/8P		C40 0.01
IC10	MC14070BF	+5V/14P	GND/7P		C41 0.01
IC11	MC14013BF	+5V/14P	GND/7P		C42 0.01
IC12	MC14538BF	+5V/16P	GND/8P		C43 0.01
IC14	MC14053BF	+5V/16P	GND/8P	-5V/7P	C45 0.01 C46 0.01
IC15	LM2903M	+5V/8P		-5V/4P	C47 0.01 C48 0.01
IC16	μPC358G2	+5V/8P	GND/4P		C49 0.01
IC17	LM2903M	+5V/8P	GND/4P		C50 0.01
IC18	μPC358G2	+5V/8P	GND/4P		C51 0.01
IC19	LM2903M	+5V/8P	GND/4P		C52 0.01
IC22	TC4S11F	+5V/6P	GND/3P		C39 0.01


IC11
MC14013BF
(2/2)
8
9
Q
S
Q
11
11
CK
R
Q̄
10

SV-97A BOARD

1-625-540-14
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-

(Page 11-91 and 92 are missing.)

SY-117C; SYSTEM CONTROL
KY-124; KEY BOARD

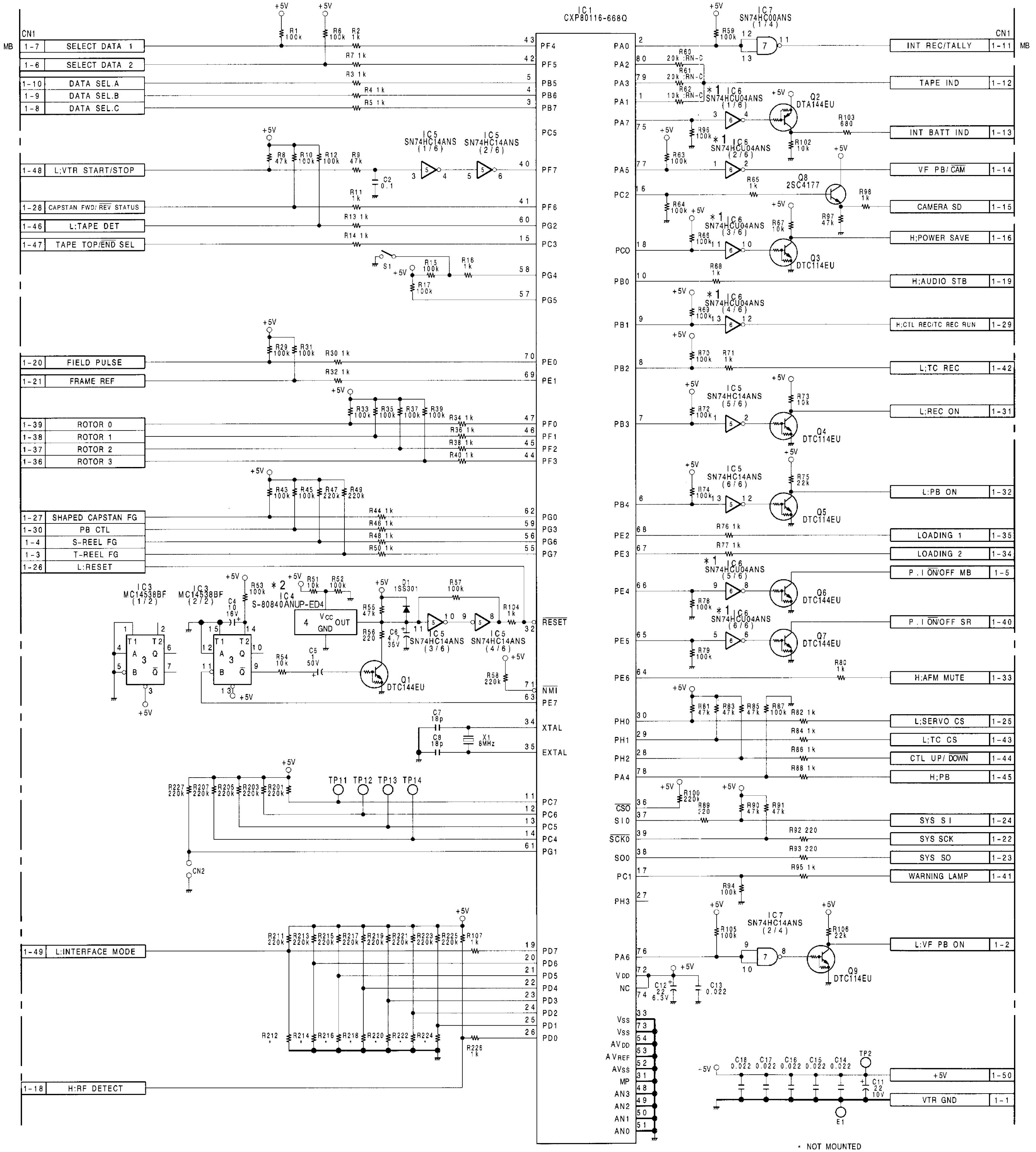
1

2

3

4

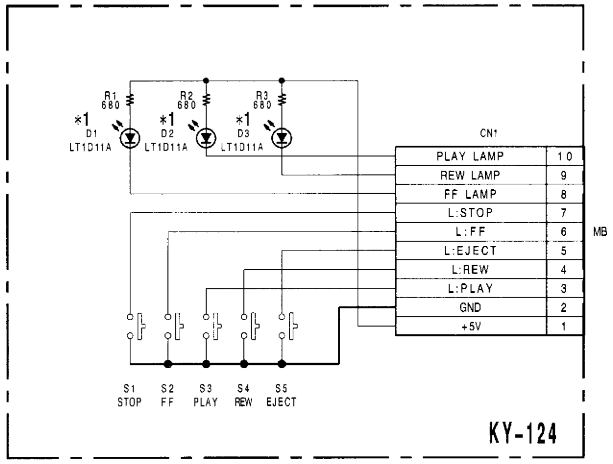
5


CN1
MB
SELECT DATA 1
SELECT DATA 2
DATA SEL.A
DATA SEL.B
DATA SEL.C
L:VTR START/STOP
CAPSTAN FWD/REV STATUS
L:TAPE DET
TAPE TOP/END SEL
FIELD PULSE
FRAME REF
ROTOR 0
ROTOR 1
ROTOR 2
ROTOR 3
SHAPED CAPSTAN FG
PB CTL
S-REEL FG
T-REEL FG
L:RESET
L:INTERFACE MODE
H:RF DETECT
IC1
CXP80116-668Q
IC3
MC14538BF
IC4
S-80840ANUP-ED4
IC5
SN74HC14ANS
IC6
SN74HCU04ANS
IC7
SN74HC00ANS
SN74HC14ANS
Q1 DTC144EU
Q2 DTA144EU
Q3 DTC114EU
Q4 DTC114EU
Q5 DTC114EU
Q6 DTC144EU
Q7 DTC144EU
Q8 2SC4177
Q9 DTC114EU
X1 8MHz
TP11
TP12
TP13
TP14
TP2
CN2
E1
INT REC/TALLY
TAPE IND
INT BATT IND
VF PB/CAM
CAMERA SD
H;POWER SAVE
H;AUDIO STB
H;CTL REC/TC REC RUN
L;TC REC
L;REC ON
L;PB ON
LOADING 1
LOADING 2
P.I ON/OFF MB
P.I ON/OFF SR
H;AFM MUTE
L;SERVO CS
L;TC CS
CTL UP/DOWN
H;PB
SYS SI
SYS SCK
SYS SO
WARNING LAMP
L;VF PB ON
+5V
VTR GND
RESET
NMI
XTAL
EXTAL
VDD
VSS
AVDD
AVREF
AVSS

• NOT MOUNTED

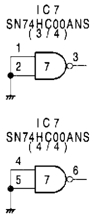
KY-124 BOARD

MARK	CHANGE INFORMATION	SERIAL NO.
*1	D1,D2,D3 GL-1HD11 → LT1D11A	J ;30661- UC;10604-


D1 LT1D11A
D2 LT1D11A
D3 LT1D11A
R1 680
R2 680
R3 680
CN1
PLAY LAMP
REW LAMP
FF LAMP
L:STOP
L:FF
L:EJECT
L:REW
L:PLAY
GND
+5V
MB
S1 STOP
S2 FF
S3 PLAY
S4 REW
S5 EJECT
KY-124

KY-124 BOARD

1-625-549-11
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-


IC7
SN74HC00ANS
(3/4)
IC7
SN74HC00ANS
(4/4)

SY-117C BOARD

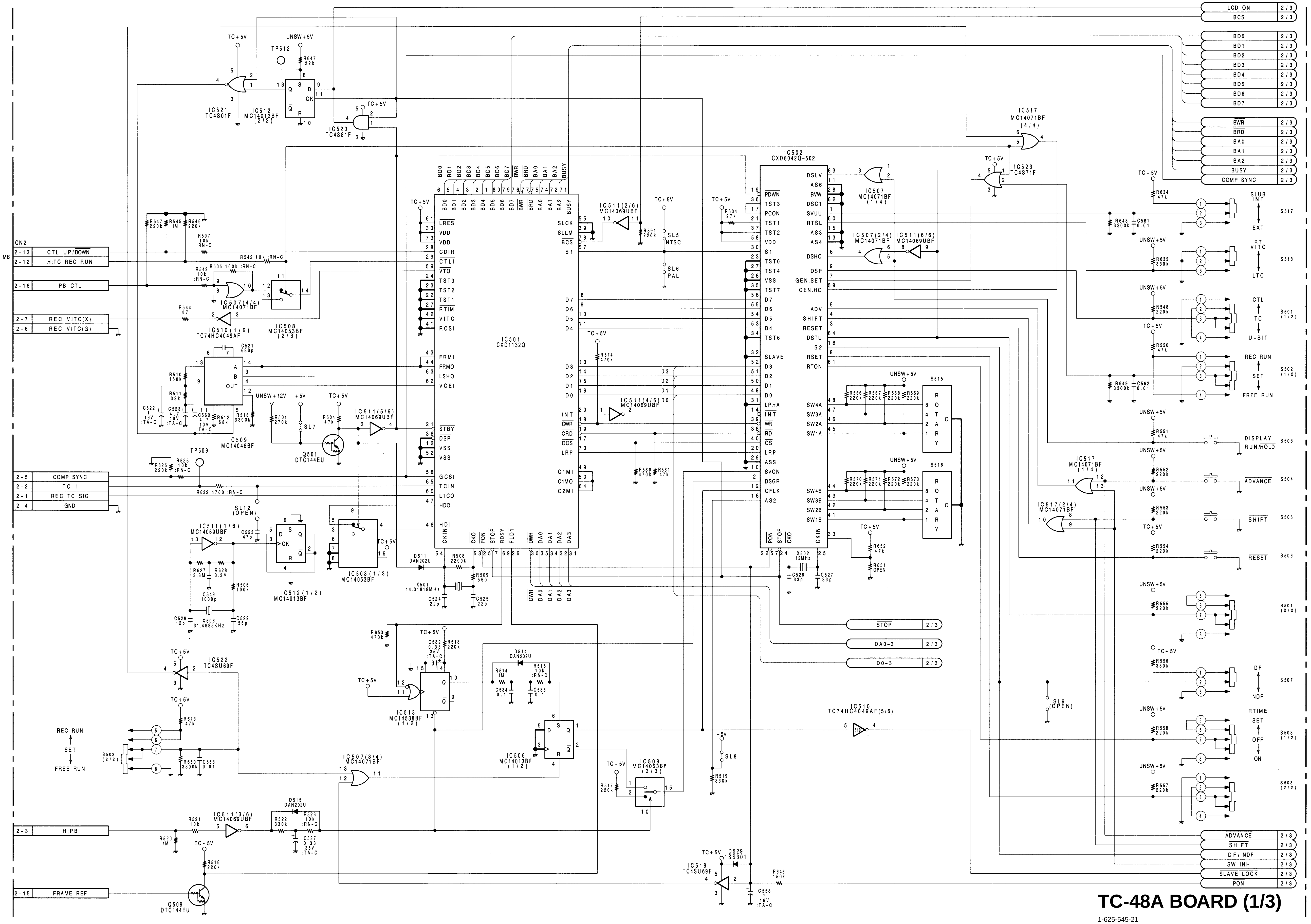
MARK	CHANGE INFORMATION	SERIAL No.
*1	IC6 TC40H004F ↓ SN74HCU04ANS	J ;30245- UC;10191-
*2	IC4 S-8054HN-CB ↓ S-80840ANUP-ED4	J ;31452- UC;11484-

SY-117C BOARD

1-625-539-21
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-

A B C D E F G H

TC-48A (1/3); TIME CODE SW

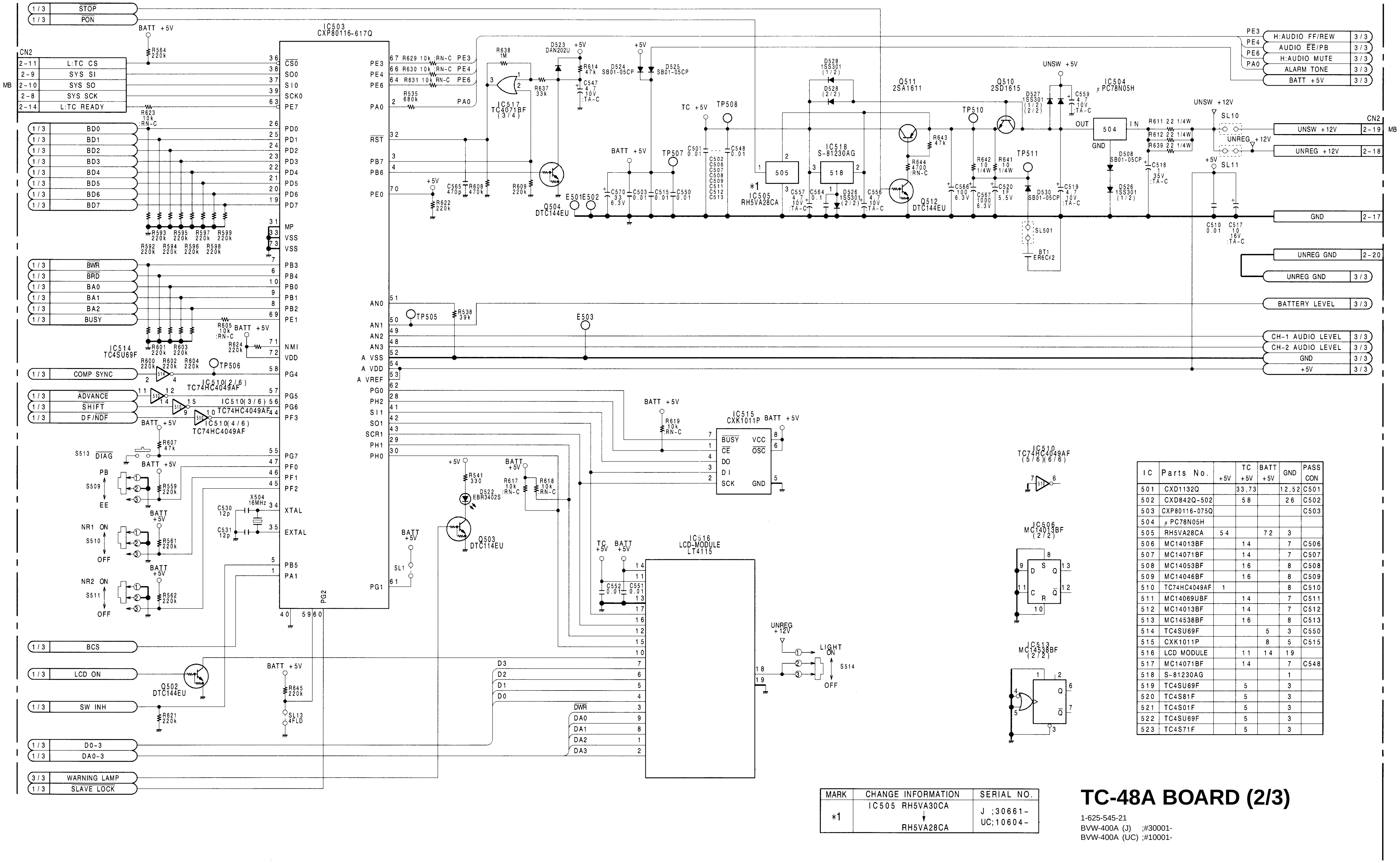

CN2
MB
2-13 CTL UP/DOWN
2-12 H;TC REC RUN
2-16 PB CTL
2-7 REC VITC(X)
2-6 REC VITC(G)
2-5 COMP SYNC
2-2 TC I
2-1 REC TC SIG
2-4 GND
2-3 H;PB
2-15 FRAME REF
IC501 CXD1132Q
IC502 CXD8042Q-502
IC507 MC14071BF
IC508 MC14053BF
IC509 MC14046BF
IC510 TC74HC4049AF
IC511 MC14069UBF
IC512 MC14013BF
IC513 MC14538BF
IC506 MC14013BF
IC517 MC14071BF
IC519 TC4SU69F
IC520 TC4S81F
IC521 TC4S01F
IC522 TC4SU69F
IC523 TC4S71F
Q501 DTC144EU
Q509 DTC144EU
X501 14.31818MHz
X502 12MHz
X503 31.4885KHz
LCD ON 2/3
BCS 2/3
BD0 2/3
BD1 2/3
BD2 2/3
BD3 2/3
BD4 2/3
BD5 2/3
BD6 2/3
BD7 2/3
BWR 2/3
BRD 2/3
BA0 2/3
BA1 2/3
BA2 2/3
BUSY 2/3
COMP SYNC 2/3
STOP 2/3
DA0-3 2/3
D0-3 2/3
ADVANCE 2/3
SHIFT 2/3
DF/NDF 2/3
SW INH 2/3
SLAVE LOCK 2/3
PON 2/3
S517 SLUB INT EXT
S518 RT VITC LTC
S501 (1/2) CTL TC U-BIT
S502 (1/2) REC RUN SET FREE RUN
S503 DISPLAY RUN/HOLD
S504 ADVANCE
S505 SHIFT
S506 RESET
S501 (2/2)
S507 DF NDF
S508 (1/2) RTIME SET OFF ON
S508 (2/2)
S502 (2/2) REC RUN SET FREE RUN
S515 ROTARY
S516 ROTARY
SL5 NTSC
SL6 PAL
SL7
SL8
SL9 (OPEN)
SL12 (OPEN)
TP509
TP512
TC+5V
UNSW+5V
UNSW+12V
+5V

TC-48A BOARD (1/3)

1-625-545-21
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-

(Page 11-99 and 100 are missing.)

TC-48A (2/3); TIME CODE SW, INDICATOR


STOP
PON
CN2
L:TC CS
SYS SI
SYS SO
SYS SCK
L:TC READY
MB
BD0
BD1
BD2
BD3
BD4
BD5
BD6
BD7
BWR
BRD
BA0
BA1
BA2
BUSY
COMP SYNC
ADVANCE
SHIFT
DF/NDF
DIAG
S513
S509
PB
EE
NR1 ON
S510
OFF
NR2 ON
S511
BCS
LCD ON
SW INH
D0-3
DA0-3
WARNING LAMP
SLAVE LOCK
IC503
CXP80116-617Q
IC514
TC4SU69F
IC510(2/6)
TC74HC4049AF
IC510(3/6)
IC510(4/6)
X504
16MHz
Q502
DTC144EU
IC517
TC4071BF
(3/4)
Q504
DTC144EU
D523
DAN202U
D524
SB01-05CP
D525
SB01-05CP
D528
1SS301
IC505
RH5VA28CA
*1
IC518
S-81230AG
Q511
2SA1611
Q512
DTC144EU
Q510
2SD1615
D527
1SS301
IC504
μPC78N05H
D508
SB01-05CP
D526
1SS301
D530
SB01-05CP
BT1
ER6CF2
SL501
SL10
SL11
UNSW +12V
UNREG +12V
UNSW +5V
TP505
TP506
TP507
TP508
TP510
TP511
E501
E502
E503
H:AUDIO FF/REW
AUDIO EE/PB
H:AUDIO MUTE
ALARM TONE
BATT +5V
GND
UNREG GND
BATTERY LEVEL
CH-1 AUDIO LEVEL
CH-2 AUDIO LEVEL
+5V
IC515
CXK1011P
IC516
LCD-MODULE
LT4115
D522
EBR3402S
Q503
DTC114EU
UNREG +12V
LIGHT
ON
OFF
S514
SL1
SL13
IC510
TC74HC4049AF
(5/6)(6/6)
IC508
MC14013BF
(2/2)
IC513
MC14538BF
(2/2)

IC	Parts No.	+5V	TC +5V	BATT +5V	GND	PASS CON
501	CXD1132Q		33,73		12,52	C501
502	CXD842Q-502		58		26	C502
503	CXP80116-075Q					C503
504	μPC78N05H					
505	RH5VA28CA	54		72	3	
506	MC14013BF		14		7	C506
507	MC14071BF		14		7	C507
508	MC14053BF		16		8	C508
509	MC14046BF		16		8	C509
510	TC74HC4049AF	1			8	C510
511	MC14069UBF		14		7	C511
512	MC14013BF		14		7	C512
513	MC14538BF		16		8	C513
514	TC4SU69F			5	3	C550
515	CXK1011P			8	5	C515
516	LCD MODULE		11	14	19	
517	MC14071BF		14		7	C548
518	S-81230AG				1	
519	TC4SU69F		5		3	
520	TC4S81F		5		3	
521	TC4S01F		5		3	
522	TC4SU69F		5		3	
523	TC4S71F		5		3	

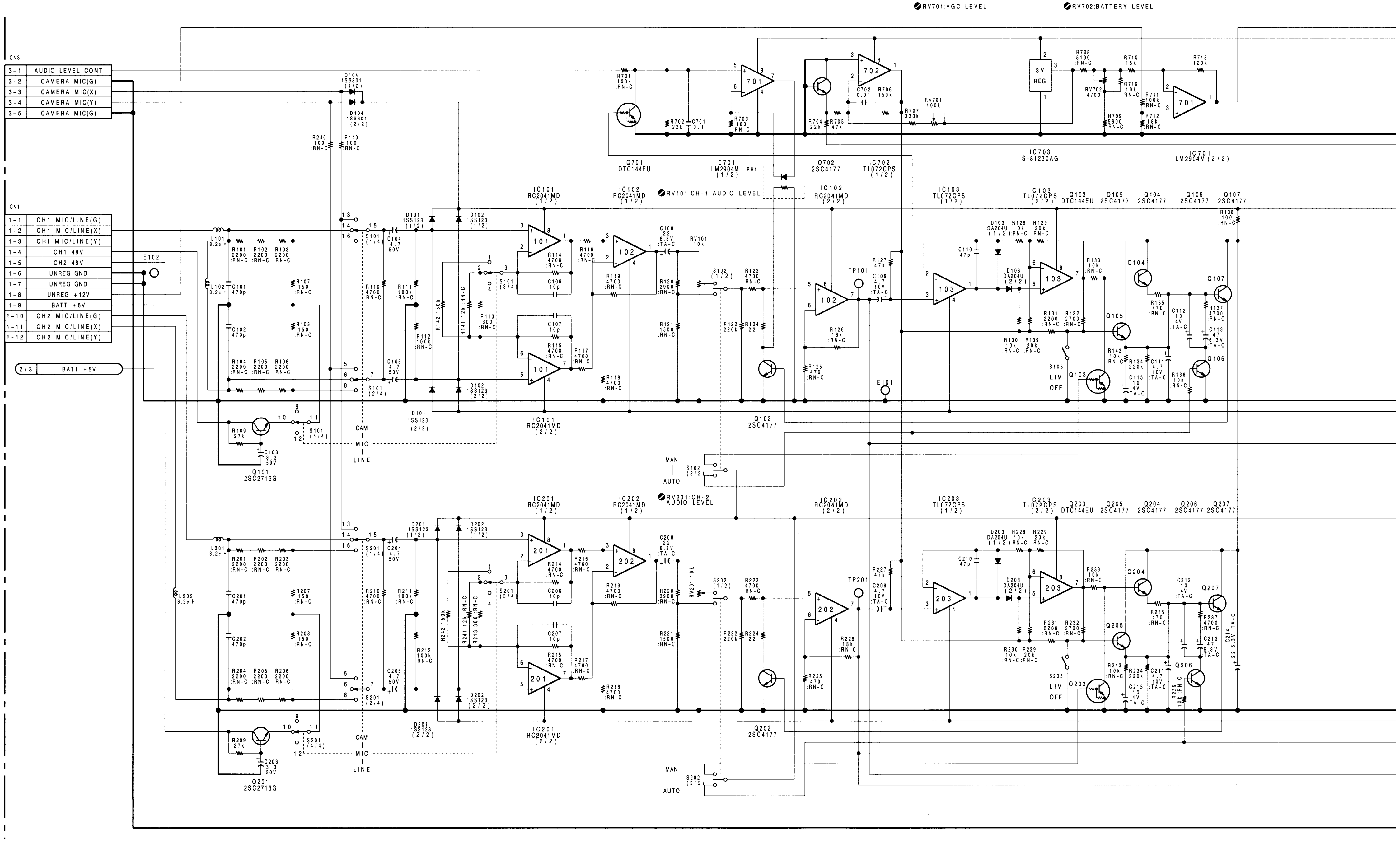
MARK	CHANGE INFORMATION	SERIAL NO.
*1	IC505 RH5VA30CA ↓ RH5VA28CA	J ;30661- UC;10604-

TC-48A BOARD (2/3)

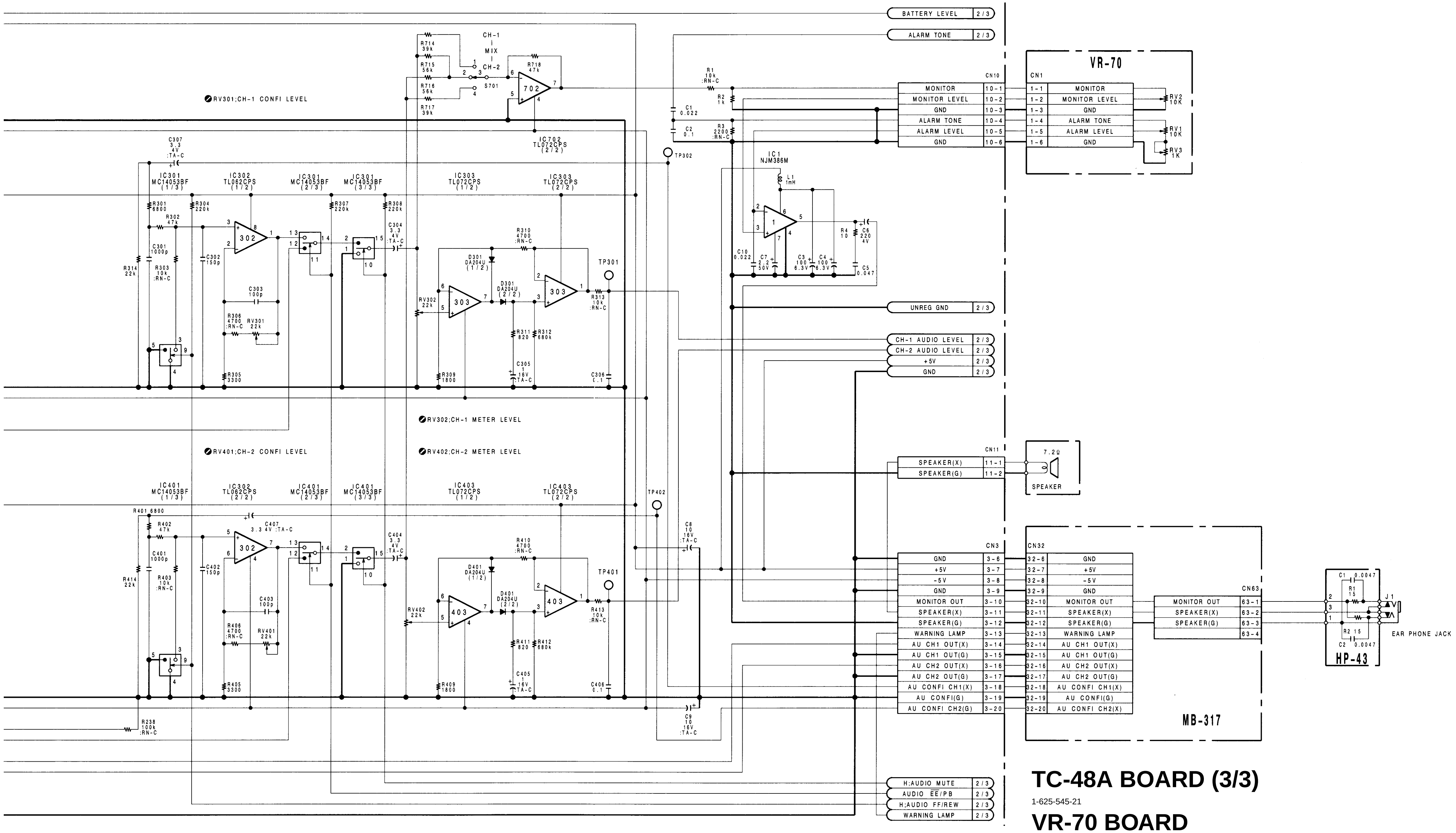
1-625-545-21
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-

(Page 11-103 to 105 are missing.)

TC-48A (3/3); INPUT SELECT, LEVEL CONTROL, MONITOR


1
2
3
4
5
CN3
3-1 AUDIO LEVEL CONT
3-2 CAMERA MIC(G)
3-3 CAMERA MIC(X)
3-4 CAMERA MIC(Y)
3-5 CAMERA MIC(G)
CN1
1-1 CH1 MIC/LINE(G)
1-2 CH1 MIC/LINE(X)
1-3 CH1 MIC/LINE(Y)
1-4 CH1 48V
1-5 CH2 48V
1-6 UNREG GND
1-7 UNREG GND
1-8 UNREG +12V
1-9 BATT +5V
1-10 CH2 MIC/LINE(G)
1-11 CH2 MIC/LINE(X)
1-12 CH2 MIC/LINE(Y)
2/3 BATT +5V
E102
E101
RV701;AGC LEVEL
RV702;BATTERY LEVEL
RV101:CH-1 AUDIO LEVEL
RV201:CH-2 AUDIO LEVEL
D104 1SS301
IC101 RC2041MD (1/2)
IC101 RC2041MD (2/2)
IC102 RC2041MD (1/2)
IC102 RC2041MD (2/2)
IC103 TL072CPS (1/2)
IC103 TL072CPS (2/2)
IC201 RC2041MD (1/2)
IC201 RC2041MD (2/2)
IC202 RC2041MD (1/2)
IC202 RC2041MD (2/2)
IC203 TL072CPS (1/2)
IC203 TL072CPS (2/2)
IC701 LM2904M (1/2)
IC701 LM2904M (2/2)
IC702 TL072CPS (1/2)
IC703 S-81230AG
3V REG
Q701 DTC144EU
Q702 2SC4177
PH1
Q101 2SC2713G
Q201 2SC2713G
Q102 2SC4177
Q202 2SC4177
Q103 DTC144EU
Q104 2SC4177
Q105 2SC4177
Q106 2SC4177
Q107 2SC4177
Q203 DTC144EU
Q204 2SC4177
Q205 2SC4177
Q206 2SC4177
Q207 2SC4177
D101 1SS123
D102 1SS123
D201 1SS123
D202 1SS123
D103 DA204U
D203 DA204U
L101 8.2μH
L102 8.2μH
L201 8.2μH
L202 8.2μH
TP101
TP201
S101
S201
S102
S202
S103 LIM OFF
S203 LIM OFF
CAM | MIC | LINE
MAN | AUTO

A
B
C
D
E
F
G
H


BATTERY LEVEL 2/3
ALARM TONE 2/3
R714 39k
R715 56k
R716 56k
R717 39k
CH-1 MIX CH-2
S701
R718 47k
702
IC702 TL072CPS (2/2)
RV301;CH-1 CONFI LEVEL
C307 3.3 4V :TA-C
IC301 MC14053BF (1/3)
IC302 TL062CPS (1/2)
IC301 MC14053BF (2/3)
IC301 MC14053BF (3/3)
IC303 TL072CPS (1/2)
IC303 TL072CPS (2/2)
R301 6800
R302 47k
R304 220k
R307 220k
R308 220k
C304 3.3 4V :TA-C
C301 1000p
R303 10k :RN-C
R314 22k
C302 150p
302
C303 100p
R306 4700 :RN-C
RV301 22k
R305 3300
R310 4700 :RN-C
D301 DA204U (1/2)
D301 DA204U (2/2)
RV302 22k
303
TP301
R313 10k :RN-C
R311 820
R312 680k
C305 1 16V :TA-C
R309 1800
C306 0.1
RV302;CH-1 METER LEVEL
RV401;CH-2 CONFI LEVEL
RV402;CH-2 METER LEVEL
R1 10k :RN-C
R2 1k
R3 2200 :RN-C
C1 0.022
C2 0.1
TP302
IC1 NJM386M
L1 1mH
R4 10
C6 220 4V
C10 0.022
C7 2.2 50V
C3 100 6.3V
C4 100 6.3V
C5 0.047
UNREG GND 2/3
CH-1 AUDIO LEVEL 2/3
CH-2 AUDIO LEVEL 2/3
+5V 2/3
GND 2/3
CN10
MONITOR 10-1
MONITOR LEVEL 10-2
GND 10-3
ALARM TONE 10-4
ALARM LEVEL 10-5
GND 10-6
VR-70
CN1
1-1 MONITOR
1-2 MONITOR LEVEL
1-3 GND
1-4 ALARM TONE
1-5 ALARM LEVEL
1-6 GND
RV2 10K
RV1 10K
RV3 1K
CN11
SPEAKER(X) 11-1
SPEAKER(G) 11-2
7.2Ω
SPEAKER
IC401 MC14053BF (1/3)
IC302 TL062CPS (2/2)
IC401 MC14053BF (2/3)
IC401 MC14053BF (3/3)
IC403 TL072CPS (1/2)
IC403 TL072CPS (2/2)
TP402
R401 6800
R402 47k
C407 3.3 4V :TA-C
C401 1000p
R403 10k :RN-C
R414 22k
C402 150p
C403 100p
R406 4700 :RN-C
RV401 22k
R405 3300
C404 3.3 4V :TA-C
R410 4700 :RN-C
D401 DA204U (1/2)
D401 DA204U (2/2)
RV402 22k
403
TP401
R413 10k :RN-C
R411 820
R412 680k
C405 1 16V :TA-C
R409 1800
C406 0.1
C8 10 16V :TA-C
C9 10 16V :TA-C
R238 100k :RN-C
CN3
GND 3-6
+5V 3-7
-5V 3-8
GND 3-9
MONITOR OUT 3-10
SPEAKER(X) 3-11
SPEAKER(G) 3-12
WARNING LAMP 3-13
AU CH1 OUT(X) 3-14
AU CH1 OUT(G) 3-15
AU CH2 OUT(X) 3-16
AU CH2 OUT(G) 3-17
AU CONFI CH1(X) 3-18
AU CONFI(G) 3-19
AU CONFI CH2(G) 3-20
CN32
32-6 GND
32-7 +5V
32-8 -5V
32-9 GND
32-10 MONITOR OUT
32-11 SPEAKER(X)
32-12 SPEAKER(G)
32-13 WARNING LAMP
32-14 AU CH1 OUT(X)
32-15 AU CH1 OUT(G)
32-16 AU CH2 OUT(X)
32-17 AU CH2 OUT(G)
32-18 AU CONFI CH1(X)
32-19 AU CONFI(G)
32-20 AU CONFI CH2(X)
MB-317
CN63
MONITOR OUT 63-1
SPEAKER(X) 63-2
SPEAKER(G) 63-3
63-4
C1 0.0047
R1 15
R2 15
C2 0.0047
J1
EAR PHONE JACK
HP-43
H;AUDIO MUTE 2/3
AUDIO EE/PB 2/3
H;AUDIO FF/REW 2/3
WARNING LAMP 2/3

TC-48A BOARD (3/3)

1-625-545-21

VR-70 BOARD

1-625-553-13

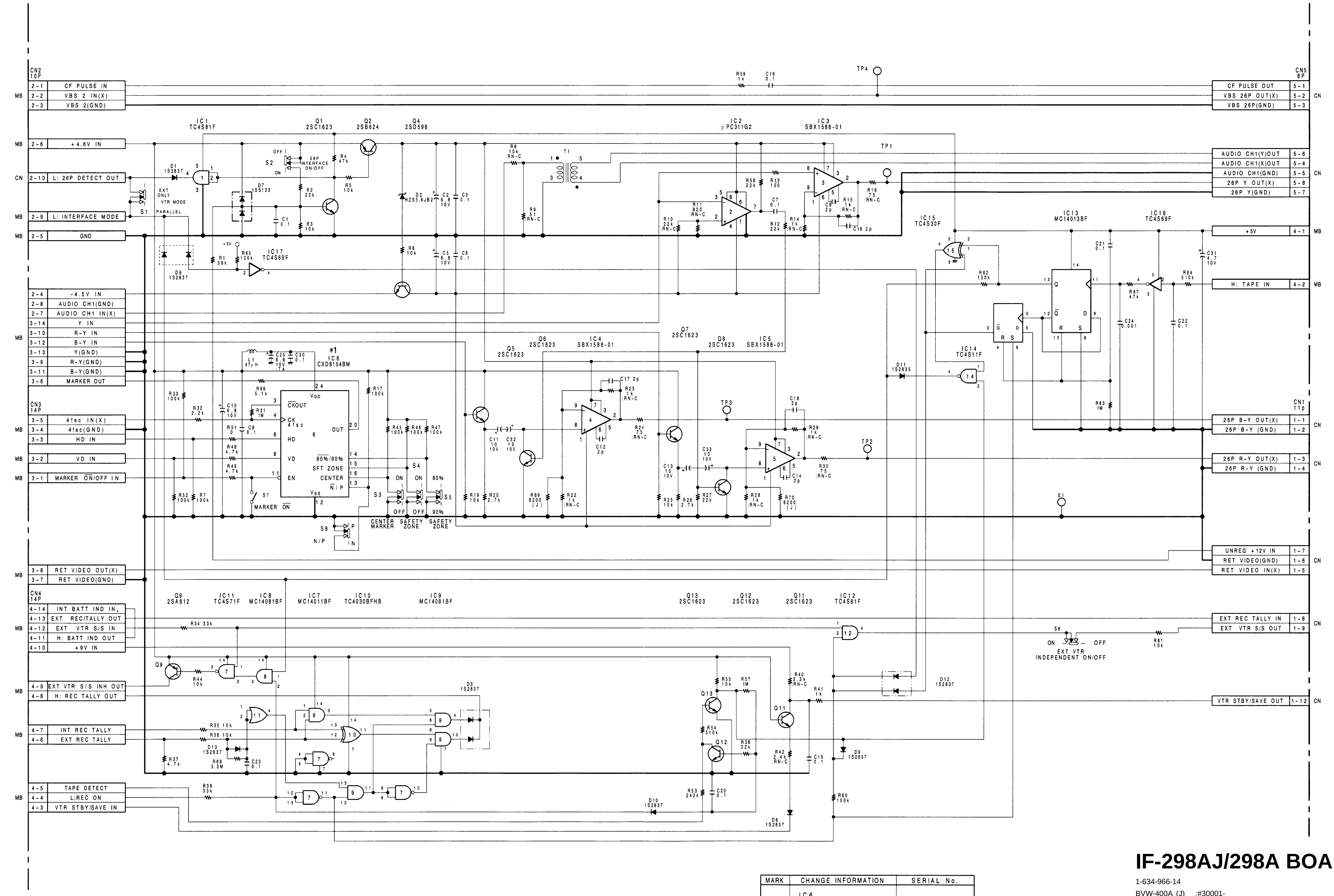
HP-43 BOARD

1-627-593-11

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-

(Page 11-109 and 110 are missing.)

IF-298AJ/298A; INTERFACE


CN2 10P
2-1 CF PULSE IN
2-2 VBS 2 IN(X)
2-3 VBS 2(GND)
2-6 +4.6V IN
2-10 L: 26P DETECT OUT
2-9 L: INTERFACE MODE
2-5 GND
2-4 -4.5V IN
2-8 AUDIO CH1(GND)
2-7 AUDIO CH1 IN(X)
3-14 Y IN
3-10 R-Y IN
3-12 B-Y IN
3-13 Y(GND)
3-9 R-Y(GND)
3-11 B-Y(GND)
3-6 MARKER OUT
CN3 14P
3-5 4fsc IN(X)
3-4 4fsc(GND)
3-3 HD IN
3-2 VD IN
3-1 MARKER ON/OFF IN
3-8 RET VIDEO OUT(X)
3-7 RET VIDEO(GND)
CN4 14P
4-14 INT BATT IND IN
4-13 EXT REC/TALLY OUT
4-12 EXT VTR S/S IN
4-11 H: BATT IND OUT
4-10 +9V IN
4-9 EXT VTR S/S INH OUT
4-8 H: REC TALLY OUT
4-7 INT REC TALLY
4-6 EXT REC TALLY
4-5 TAPE DETECT
4-4 L;REC ON
4-3 VTR STBY/SAVE IN
MB
CN
CN5 8P
CF PULSE OUT 5-1
VBS 26P OUT(X) 5-2
VBS 26P(GND) 5-3
AUDIO CH1(Y)OUT 5-6
AUDIO CH1(X)OUT 5-4
AUDIO CH1(GND) 5-5
26P Y OUT(X) 5-8
26P Y(GND) 5-7
+5V 4-1
H: TAPE IN 4-2
CN1 11P
26P B-Y OUT(X) 1-1
26P B-Y (GND) 1-2
26P R-Y OUT(X) 1-3
26P R-Y (GND) 1-4
UNREG +12V IN 1-7
RET VIDEO(GND) 1-6
RET VIDEO IN(X) 1-5
EXT REC TALLY IN 1-8
EXT VTR S/S OUT 1-9
VTR STBY/SAVE OUT 1-12
IC1 TC4S81F
Q1 2SC1623
Q2 2SB624
Q4 2SD596
IC2 μPC311G2
IC3 SBX1588-01
IC17 TC4S69F
IC6 CXD8154BM
*1
Q5 2SC1623
Q6 2SC1623
IC4 SBX1588-01
Q7 2SC1623
Q8 2SC1623
IC5 SBX1588-01
IC15 TC4S30F
IC13 MC14013BF
IC16 TC4S69F
IC14 TC4S11F
Q9 2SA812
IC11 TC4S71F
IC8 MC14081BF
IC7 MC14011BF
IC10 TC4030BFHB
IC9 MC14081BF
Q13 2SC1623
Q12 2SC1623
Q11 2SC1623
IC12 TC4S81F
TP1
TP2
TP3
TP4
T1
E1
S1 EXT ONLY VTR MODE PARALLEL
S2 OFF 26P INTERFACE ON/OFF ON
S3 ON OFF CENTER MARKER
S4 ON OFF SAFETY ZONE
S5 80% 90% SAFETY ZONE
S6 ON OFF EXT VTR INDEPENDENT ON/OFF
S7 MARKER ON
S8 N/P P N
CKOUT CK 4fsc HD VD EN VDD OUT VSS 80%/90% SFT ZONE CENTER N/P
D1 1S2837
D2 HZS5.6JB2
D3 1S2837
D6 1S2837
D7 1SS123
D8 1S2837
D9 1S2837
D10 1S2837
D11 1S2835
D12 1S2837
D13 1S2837
L1 47μH

MARK	CHANGE INFORMATION	SERIAL No.
*1	IC6 CXD8154AM ↓ CXD8154BM	J:30031- UC:10028-

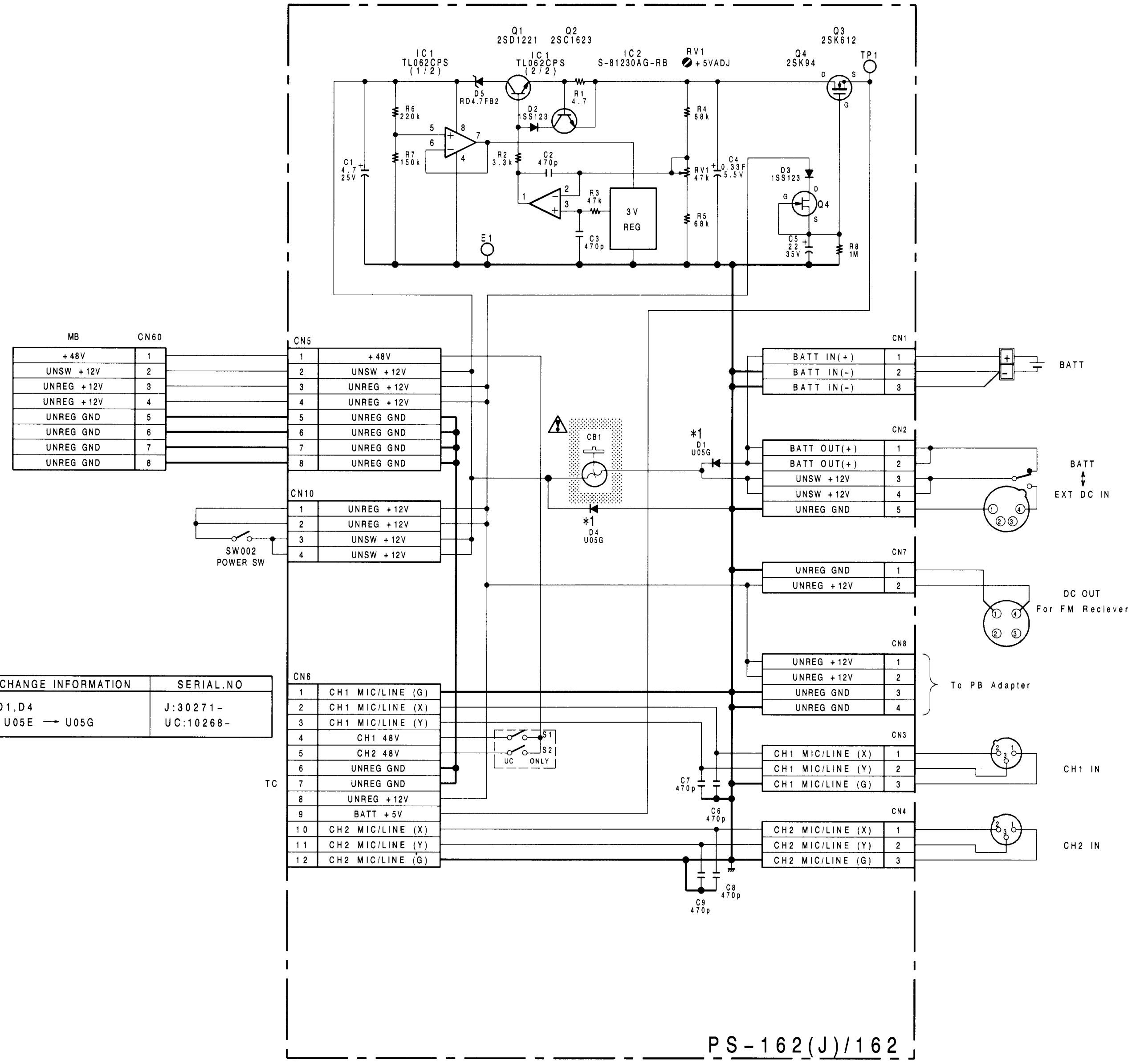
IF-298AJ/298A BOARD

1-634-966-14
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-

1 2 3 4 5

A B C D E F G H

PS-162 (J) / 162; POWER DISTRIBUTOR


Q1
2SD1221
Q2
2SC1623
IC1
TL062CPS
(1/2)
IC1
TL062CPS
(2/2)
IC2
S-81230AG-RB
RV1
+5VADJ
Q3
2SK612
Q4
2SK94
TP1
D
S
G
D5
RD4.7FB2
R1
4.7
R6
220k
D2
1SS123
R7
150k
C1
4.7
25V
R2
3.3k
C2
470p
R3
47k
C3
470p
3V
REG
E1
R4
68k
RV1
47k
C4
0.33F
5.5V
R5
68k
D3
1SS123
Q4
C5
22
35V
R8
1M
MB
CN60
+48V
UNSW +12V
UNREG +12V
UNREG +12V
UNREG GND
UNREG GND
UNREG GND
UNREG GND
CN5
+48V
UNSW +12V
UNREG +12V
UNREG +12V
UNREG GND
UNREG GND
UNREG GND
UNREG GND
CN10
UNREG +12V
UNREG +12V
UNSW +12V
UNSW +12V
SW002
POWER SW
CB1
*1
D4
U05G
*1
D1
U05G
CN1
BATT IN(+)
BATT IN(-)
BATT IN(-)
BATT
CN2
BATT OUT(+)
BATT OUT(+)
UNSW +12V
UNSW +12V
UNREG GND
BATT
EXT DC IN
CN7
UNREG GND
UNREG +12V
DC OUT
For FM Reciever
CN8
UNREG +12V
UNREG +12V
UNREG GND
UNREG GND
To PB Adapter
CN6
TC
CH1 MIC/LINE (G)
CH1 MIC/LINE (X)
CH1 MIC/LINE (Y)
CH1 48V
CH2 48V
UNREG GND
UNREG GND
UNREG +12V
BATT +5V
CH2 MIC/LINE (X)
CH2 MIC/LINE (Y)
CH2 MIC/LINE (G)
S1
S2
UC ONLY
C7
470p
C6
470p
C8
470p
C9
470p
CN3
CH1 MIC/LINE (X)
CH1 MIC/LINE (Y)
CH1 MIC/LINE (G)
CH1 IN
CN4
CH2 MIC/LINE (X)
CH2 MIC/LINE (Y)
CH2 MIC/LINE (G)
CH2 IN
PS-162(J)/162

MARK	CHANGE INFORMATION	SERIAL.NO
*1	D1,D4 U05E → U05G	J:30271- UC:10268-

注意１；⚠印及び▨で囲まれた部品は安全性を維持するために重要な部品です。従って交換する時は必ず指定の部品を使って下さい。

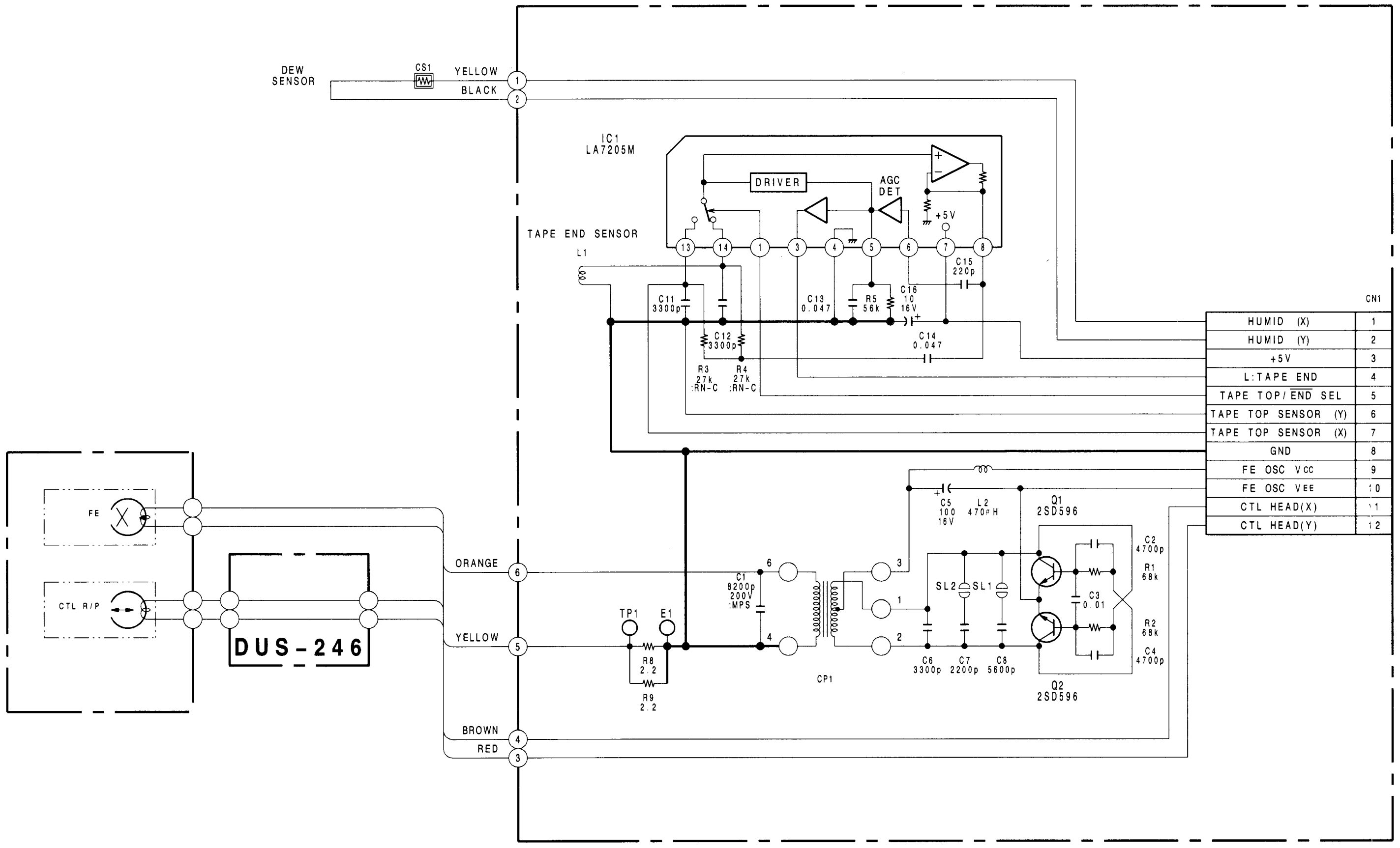
NOTE:

The shaded and ⚠ -marked components are critical to safety.
Replace only with same components as specified.

PS-162 (J) / 162 BOARD

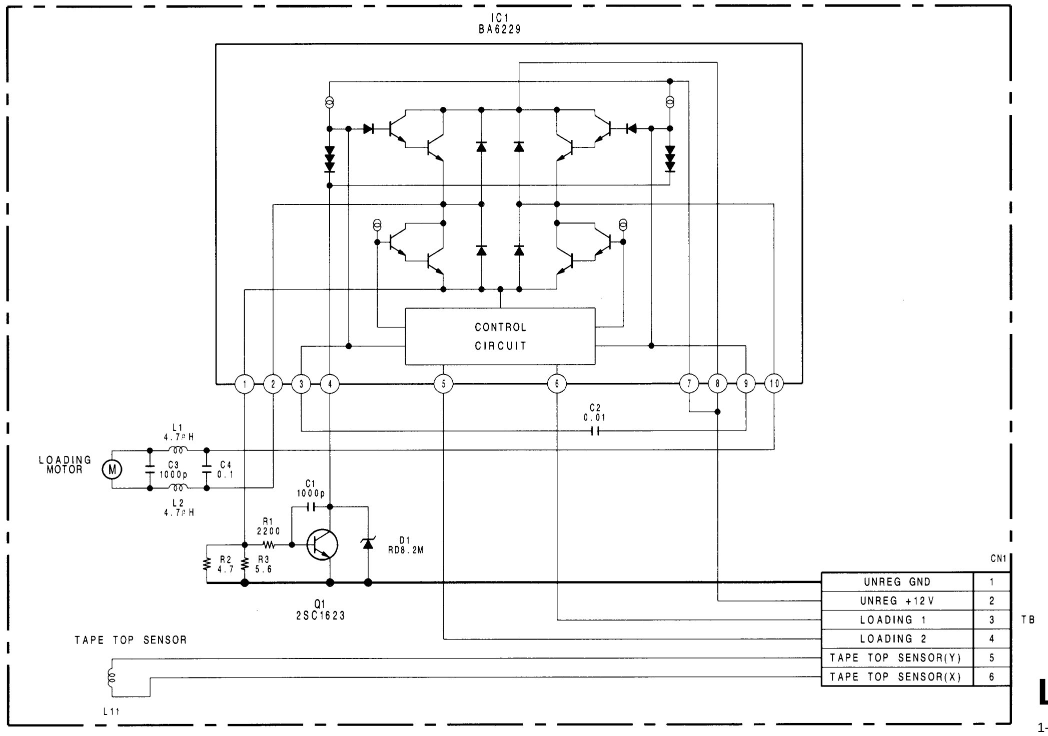
1-625-547-13, 14
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-

FE-4; FULL ERASE
LD-21; LOADING
SR-40; MECHANICAL POSITION SENSOR


DEW SENSOR
CS1
YELLOW
BLACK
IC1
LA7205M
DRIVER
AGC DET
+5V
TAPE END SENSOR
L1
C11 3300p
C12 3300p
R3 27k :RN-C
R4 27k :RN-C
C13 0.047
R5 56k
C16 10 16V
C15 220p
C14 0.047
CN1
HUMID (X) 1
HUMID (Y) 2
+5V 3
L:TAPE END 4
TAPE TOP/END SEL 5
TAPE TOP SENSOR (Y) 6
TAPE TOP SENSOR (X) 7
GND 8
FE OSC VCC 9
FE OSC VEE 10
CTL HEAD(X) 11
CTL HEAD(Y) 12
MB
FE
CTL R/P
DUS-246
ORANGE
YELLOW
BROWN
RED
TP1
E1
R8 2.2
R9 2.2
C1 8200p 200V :MPS
CP1
C5 100 16V
L2 470μH
Q1 2SD596
SL2
SL1
C2 4700p
R1 68k
C3 0.01
R2 68k
C4 4700p
C6 3300p
C7 2200p
C8 5600p
Q2 2SD596

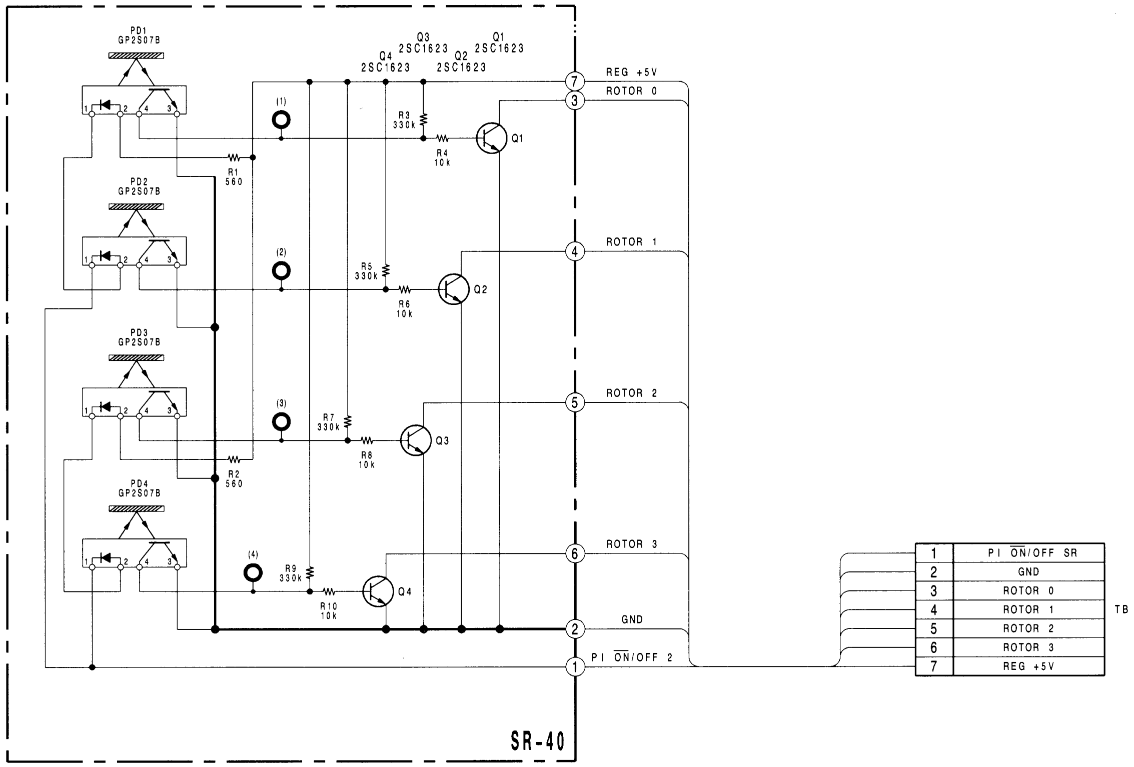
FE-4 BOARD

1-625-551-13, 14
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-


IC1
BA6229
CONTROL CIRCUIT
C2 0.01
LOADING MOTOR
M
L1 4.7μH
C3 1000p
C4 0.1
L2 4.7μH
C1 1000p
R1 2200
R2 4.7
R3 5.6
Q1 2SC1623
D1 RD8.2M
CN1
UNREG GND 1
UNREG +12V 2
LOADING 1 3
LOADING 2 4
TAPE TOP SENSOR(Y) 5
TAPE TOP SENSOR(X) 6
TB
TAPE TOP SENSOR
L11

LD-21 BOARD

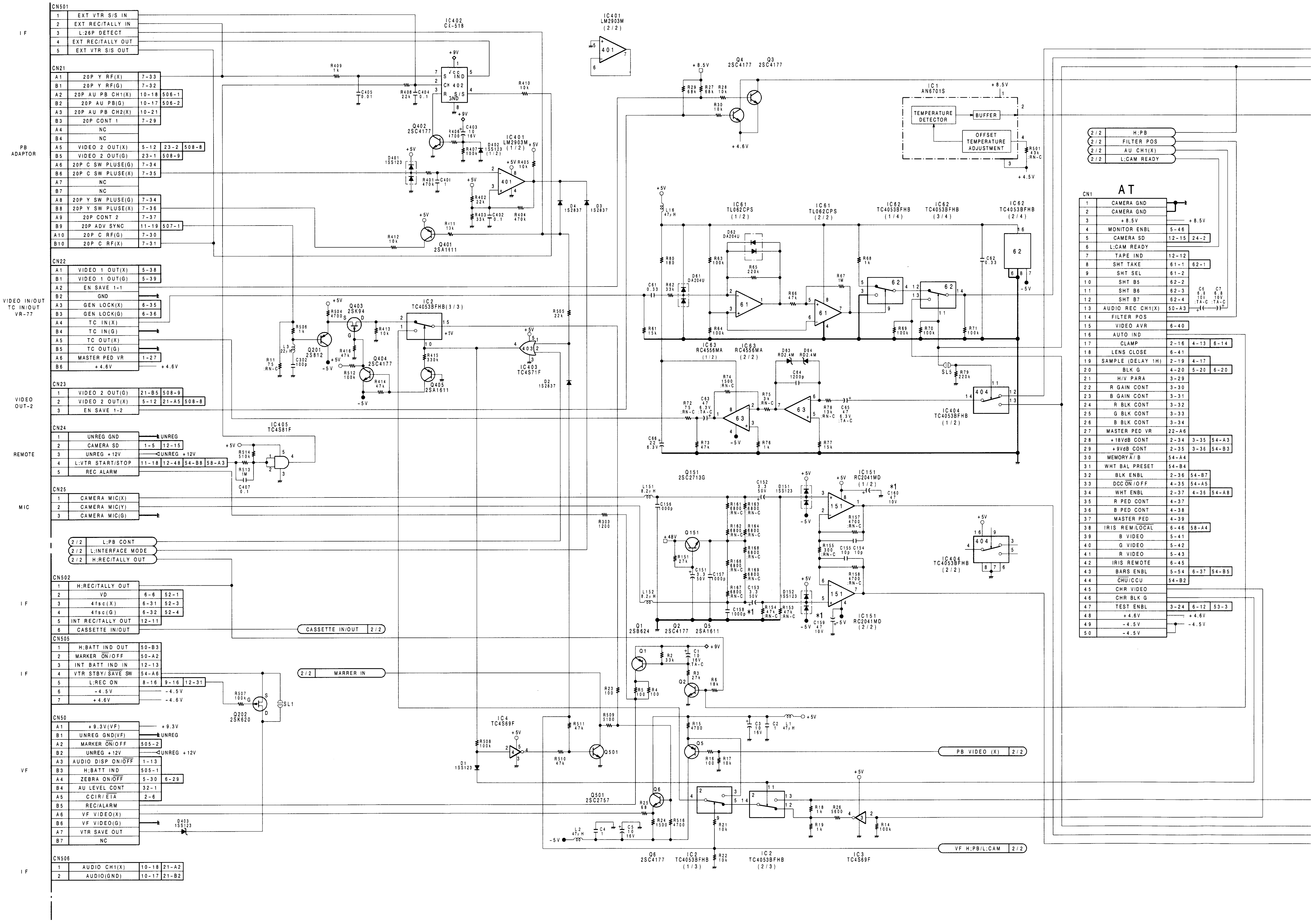
1-625-548-14, 15
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-


PD1 GP2S07B
PD2 GP2S07B
PD3 GP2S07B
PD4 GP2S07B
Q3 2SC1623
Q1 2SC1623
Q4 2SC1623
Q2 2SC1623
R1 560
R2 560
R3 330k
R4 10k
R5 330k
R6 10k
R7 330k
R8 10k
R9 330k
R10 10k
(1)
(2)
(3)
(4)
REG +5V
ROTOR 0
ROTOR 1
ROTOR 2
ROTOR 3
GND
PI ON/OFF 2
1 PI ON/OFF SR
2 GND
3 ROTOR 0
4 ROTOR 1
5 ROTOR 2
6 ROTOR 3
7 REG +5V
TB
SR-40

SR-40 BOARD

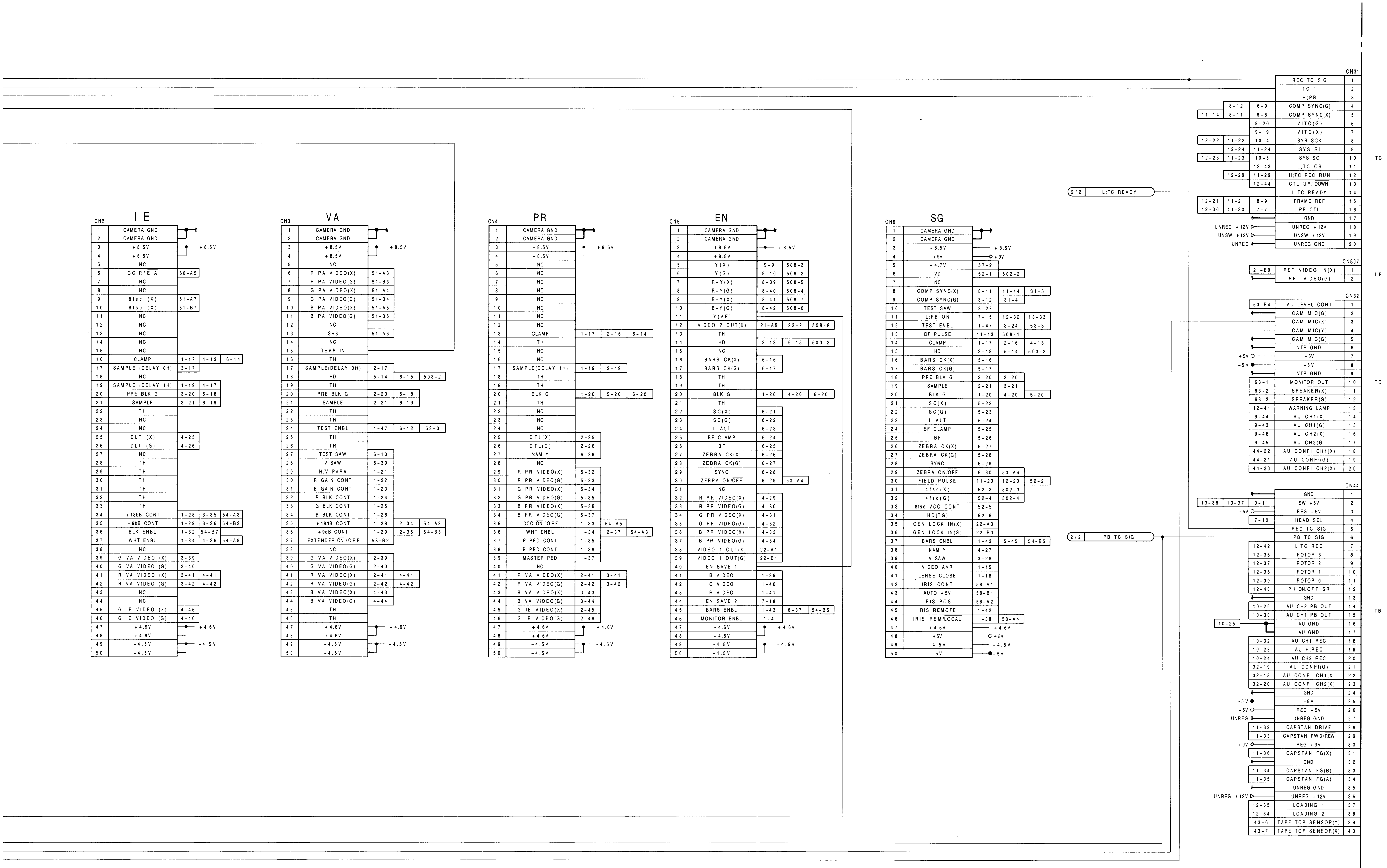
1-625-550-13
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

MB-317 (1/2); MOTHER BOARD


1
2
3
4
5
IF
CN501
EXT VTR S/S IN
EXT REC/TALLY IN
L:26P DETECT
EXT REC/TALLY OUT
EXT VTR S/S OUT
PB ADAPTOR
CN21
20P Y RF(X)
20P Y RF(G)
20P AU PB CH1(X)
20P AU PB(G)
20P AU PB CH2(X)
20P CONT 1
VIDEO 2 OUT(X)
VIDEO 2 OUT(G)
20P C SW PLUSE(G)
20P C SW PLUSE(X)
20P Y SW PLUSE(G)
20P Y SW PLUSE(X)
20P CONT 2
20P ADV SYNC
20P C RF(G)
20P C RF(X)
VIDEO IN/OUT TC IN/OUT VR-77
CN22
VIDEO 1 OUT(X)
VIDEO 1 OUT(G)
EN SAVE 1-1
GND
GEN LOCK(X)
GEN LOCK(G)
TC IN(X)
TC IN(G)
TC OUT(X)
TC OUT(G)
MASTER PED VR
+4.6V
VIDEO OUT-2
CN23
VIDEO 2 OUT(G)
VIDEO 2 OUT(X)
EN SAVE 1-2
REMOTE
CN24
UNREG GND
CAMERA SD
UNREG +12V
L:VTR START/STOP
REC ALARM
MIC
CN25
CAMERA MIC(X)
CAMERA MIC(Y)
CAMERA MIC(G)
L;PB CONT
L;INTERFACE MODE
H;REC/TALLY OUT
CN502
H;REC/TALLY OUT
VD
4fsc(X)
4fsc(G)
INT REC/TALLY OUT
CASSETTE IN/OUT
CN505
H;BATT IND OUT
MARKER ON/OFF
INT BATT IND IN
VTR STBY/SAVE SW
L;REC ON
-4.5V
+4.6V
MARRER IN
VF
CN50
+9.3V(VF)
UNREG GND(VF)
MARKER ON/OFF
UNREG +12V
AUDIO DISP ON/OFF
H;BATT IND
ZEBRA ON/OFF
AU LEVEL CONT
CCIR/EIA
REC/ALARM
VF VIDEO(X)
VF VIDEO(G)
VTR SAVE OUT
NC
CN506
AUDIO CH1(X)
AUDIO(GND)
IC402 CX-518
IC401 LM2903M
Q401 2SA1611
Q402 2SC4177
Q403 2SK94
Q404 2SC4177
Q405 2SA1611
IC405 TC4S81F
IC2 TC4053BFHB(3/3)
IC403 TC4S71F
Q201 2SB12
Q202 2SK620
Q3 2SC4177
Q4 2SC4177
IC1 AN6701S
TEMPERATURE DETECTOR
BUFFER
OFFSET TEMPERATURE ADJUSTMENT
IC61 TL062CPS
IC62 TC4053BFHB
IC63 RC4556MA
IC404 TC4053BFHB
Q151 2SC2713G
IC151 RC2041MD
Q1 2SB624
Q2 2SC4177
Q5 2SA1611
IC4 TC4S69F
Q501 2SC2757
Q6 2SC4177
IC3 TC4S69F
PB VIDEO (X)
VF H;PB/L;CAM
H;PB
FILTER POS
AU CH1(X)
L;CAM READY
AT
CN1
CAMERA GND
+8.5V
MONITOR ENBL
CAMERA SD
L;CAM READY
TAPE IND
SHT TAKE
SHT SEL
SHT B5
SHT B6
SHT B7
AUDIO REC CH1(X)
FILTER POS
VIDEO AVR
AUTO IND
CLAMP
LENS CLOSE
SAMPLE (DELAY 1H)
BLK G
H/V PARA
R GAIN CONT
B GAIN CONT
R BLK CONT
G BLK CONT
B BLK CONT
MASTER PED VR
+18VdB CONT
+9VdB CONT
MEMORY A/B
WHT BAL PRESET
BLK ENBL
DCC ON/OFF
WHT ENBL
R PED CONT
B PED CONT
MASTER PED
IRIS REM/LOCAL
B VIDEO
G VIDEO
R VIDEO
IRIS REMOTE
BARS ENBL
CHU/CCU
CHR VIDEO
CHR BLK G
TEST ENBL
+4.6V
-4.5V

MARK	CHANGE INFORMATION	SERIAL No.
*1	C158 100p C159 47 10V C160 47 10V } ADDED	J:30181- UC:10148-

(Page 11-121 and 122 are missing.)


CN2 IE
CN3 VA
CN4 PR
CN5 EN
CN6 SG
CN31
CN507
CN32
CN44
2/2 L;TC READY
2/2 PB TC SIG
TC
IF
TC
TB
+8.5V
+4.6V
-4.5V
1
2
3
4
5

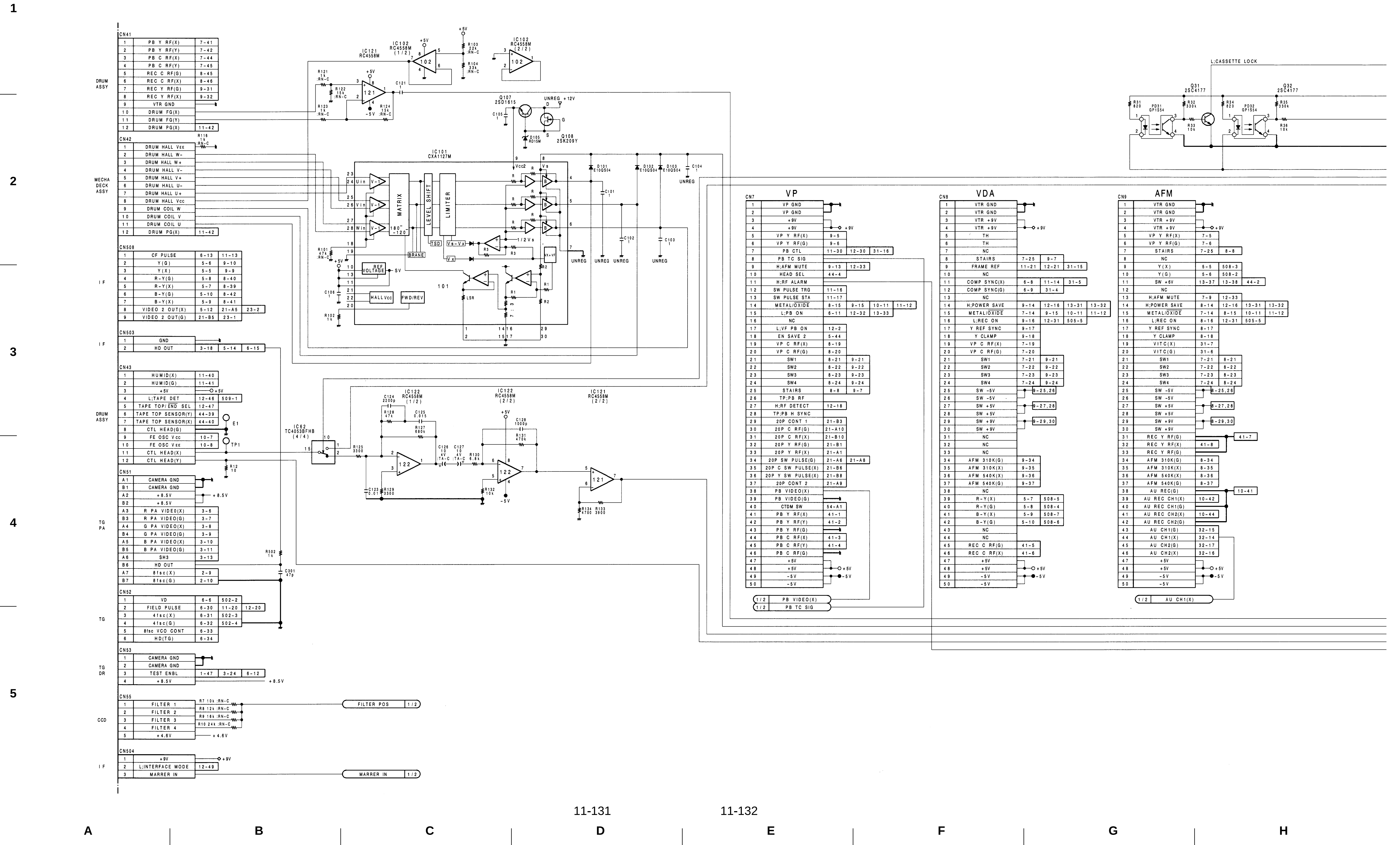
MB-317 (1/2) BOARD

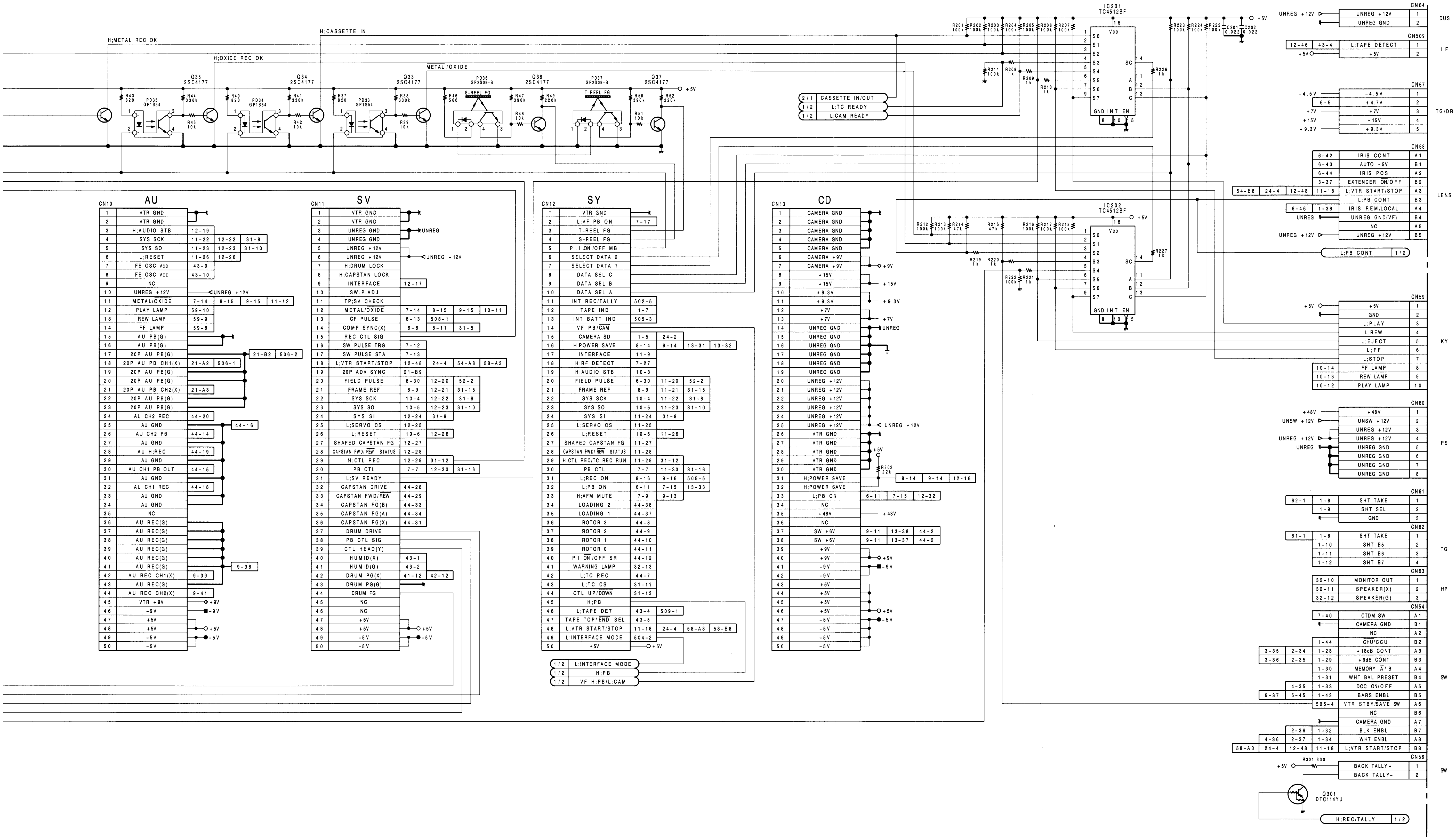
1-634-075-11
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-

(Page 11-127 to 130 are missing.)

I J K L M N O P

MB-317 (2/2); MOTHER BOARD

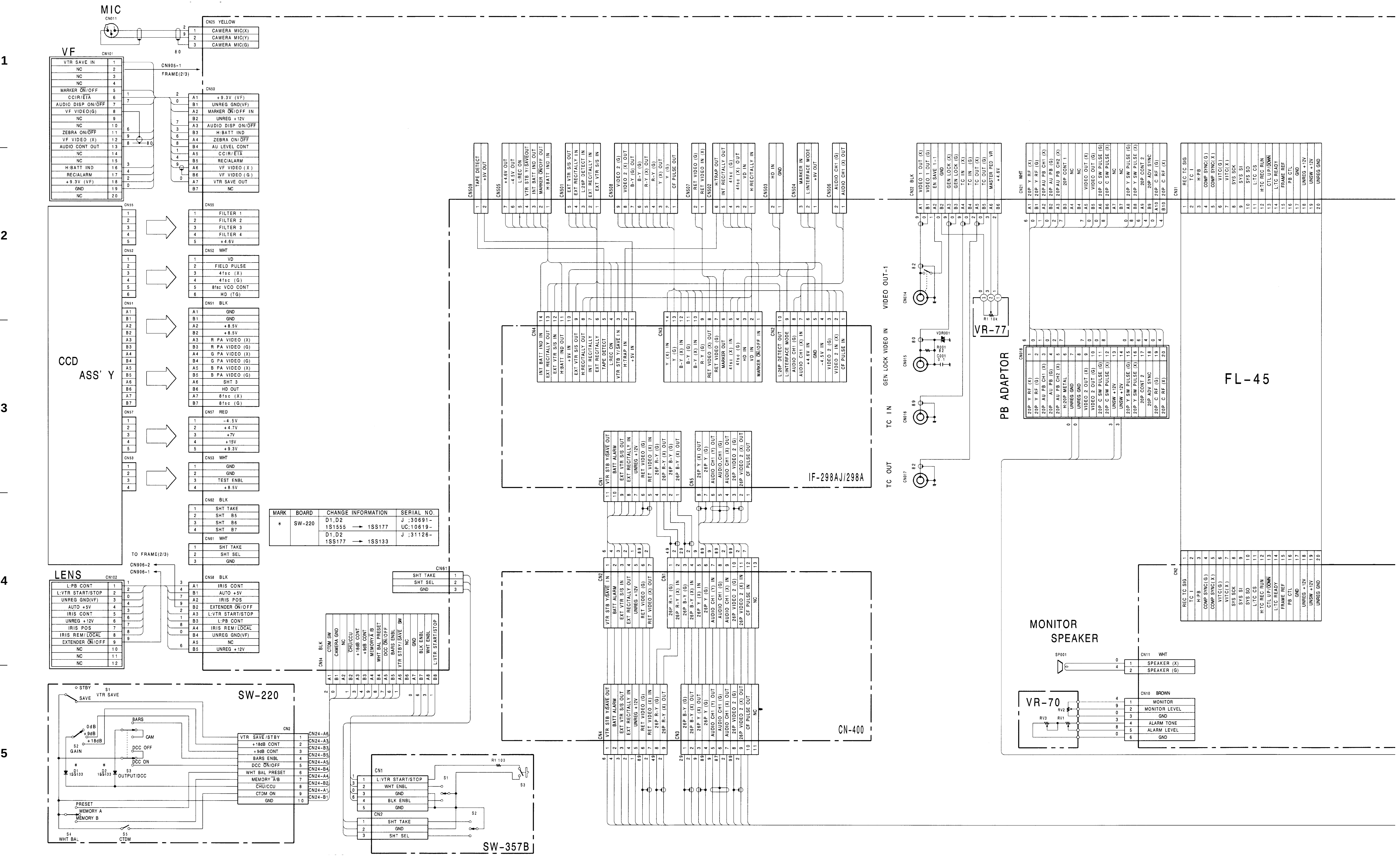

1
2
3
4
5
A
B
C
D
E
F
G
H
CN41
DRUM ASSY
PB Y RF(X)
PB Y RF(Y)
PB C RF(X)
PB C RF(Y)
REC C RF(G)
REC C RF(X)
REC Y RF(G)
REC Y RF(X)
VTR GND
DRUM FG(X)
DRUM FG(Y)
DRUM PG(X)
CN42
MECHA DECK ASSY
DRUM HALL Vcc
DRUM HALL W-
DRUM HALL W+
DRUM HALL V-
DRUM HALL V+
DRUM HALL U-
DRUM HALL U+
DRUM COIL W
DRUM COIL V
DRUM COIL U
DRUM PG(X)
CN508
I F
CF PULSE
Y(G)
Y(X)
R-Y(G)
R-Y(X)
B-Y(G)
B-Y(X)
VIDEO 2 OUT(X)
VIDEO 2 OUT(G)
CN503
GND
HD OUT
CN43
HUMID(X)
HUMID(G)
+5V
L;TAPE DET
TAPE TOP/END SEL
TAPE TOP SENSOR(Y)
TAPE TOP SENSOR(X)
CTL HEAD(G)
FE OSC Vcc
FE OSC Vee
CTL HEAD(X)
CTL HEAD(Y)
E1
TP1
CN51
TG PA
CAMERA GND
+8.5V
R PA VIDEO(X)
R PA VIDEO(G)
G PA VIDEO(X)
G PA VIDEO(G)
B PA VIDEO(X)
B PA VIDEO(G)
SH3
HD OUT
8fsc(X)
8fsc(G)
CN52
TG
VD
FIELD PULSE
4fsc(X)
4fsc(G)
8fsc VCO CONT
HD(TG)
CN53
TG DR
CAMERA GND
TEST ENBL
+8.5V
CN55
CCD
FILTER 1
FILTER 2
FILTER 3
FILTER 4
+4.6V
FILTER POS
CN504
+9V
L;INTERFACE MODE
MARRER IN
IC121 RC4558M
IC102 RC4558M (1/2)
IC102 RC4558M (2/2)
Q107 2SD1615
Q108 2SK209Y
UNREG +12V
D105 RD15M
IC101 CXA1127M
MATRIX
LEVEL SHIFT
LIMITER
REF VOLTAGE
HALL Vcc
FWD/REV
BRAKE
TSD
Vs-Vx
1/2Vs
D101 E10QS04
D102 E10QS04
D103 E10QS04
UNREG
IC62 TC4053BFHB (4/4)
IC122 RC4558M (1/2)
IC122 RC4558M (2/2)
IC121 RC4558M (2/2)
R501 1k
C301 47p
L;CASSETTE LOCK
Q31 2SC4177
Q32 2SC4177
PD31 GP1S54
PD32 GP1S54
CN7
VP
VP GND
+9V
VP Y RF(X)
VP Y RF(G)
PB CTL
PB TC SIG
H;AFM MUTE
HEAD SEL
H;RF ALARM
SW PULSE TRG
SW PULSE STA
METAL/OXIDE
L;PB ON
NC
L;VF PB ON
EN SAVE 2
VP C RF(X)
VP C RF(G)
SW1
SW2
SW3
SW4
STAIRS
TP;PB RF
H;RF DETECT
TP;PB H SYNC
20P CONT 1
20P C RF(G)
20P C RF(X)
20P Y RF(G)
20P Y RF(X)
20P SW PULSE(G)
20P C SW PULSE(X)
20P Y SW PULSE(X)
20P CONT 2
PB VIDEO(X)
PB VIDEO(G)
CTDM SW
PB Y RF(X)
PB Y RF(Y)
PB Y RF(G)
PB C RF(X)
PB C RF(Y)
PB C RF(G)
+5V
-5V
CN8
VDA
VTR GND
VTR +9V
TH
NC
STAIRS
FRAME REF
COMP SYNC(X)
COMP SYNC(G)
H;POWER SAVE
METAL/OXIDE
L;REC ON
Y REF SYNC
Y CLAMP
VP C RF(X)
VP C RF(G)
SW -5V
SW +5V
SW +9V
AFM 310K(G)
AFM 310K(X)
AFM 540K(X)
AFM 540K(G)
R-Y(X)
R-Y(G)
B-Y(X)
B-Y(G)
REC C RF(G)
REC C RF(X)
CN9
AFM
VP Y RF(X)
VP Y RF(G)
Y(X)
Y(G)
SW +6V
VITC(X)
VITC(G)
REC Y RF(X)
REC Y RF(G)
AU REC(G)
AU REC CH1(X)
AU REC CH1(G)
AU REC CH2(X)
AU REC CH2(G)
AU CH1(G)
AU CH1(X)
AU CH2(G)
AU CH2(X)
AU CH1(X)


IC201 TC4512BF
IC202 TC4512BF
CN10 AU
CN11 SV
CN12 SY
CN13 CD
CN64 DUS
CN509 IF
CN57 TG/DR
CN58 LENS
CN59 KY
CN60 PS
CN61
CN62 TG
CN63 HP
CN54 SW
CN56 SW
Q35 2SC4177
Q34 2SC4177
Q33 2SC4177
Q36 2SC4177
Q37 2SC4177
PD35 GP1S54
PD34 GP1S54
PD33 GP1S54
PD36 GP2S09-B
PD37 GP2S09-B
S-REEL FG
T-REEL FG
Q301 DTC114YU
H;METAL REC OK
H;OXIDE REC OK
H;CASSETTE IN
METAL/OXIDE
CASSETTE IN/OUT
L;TC READY
L;CAM READY
L;INTERFACE MODE
H;PB
VF H;PB/L;CAM
L;PB CONT
H;REC/TALLY
1
2
3
4
5
I
J
K
L
M
N
O
P

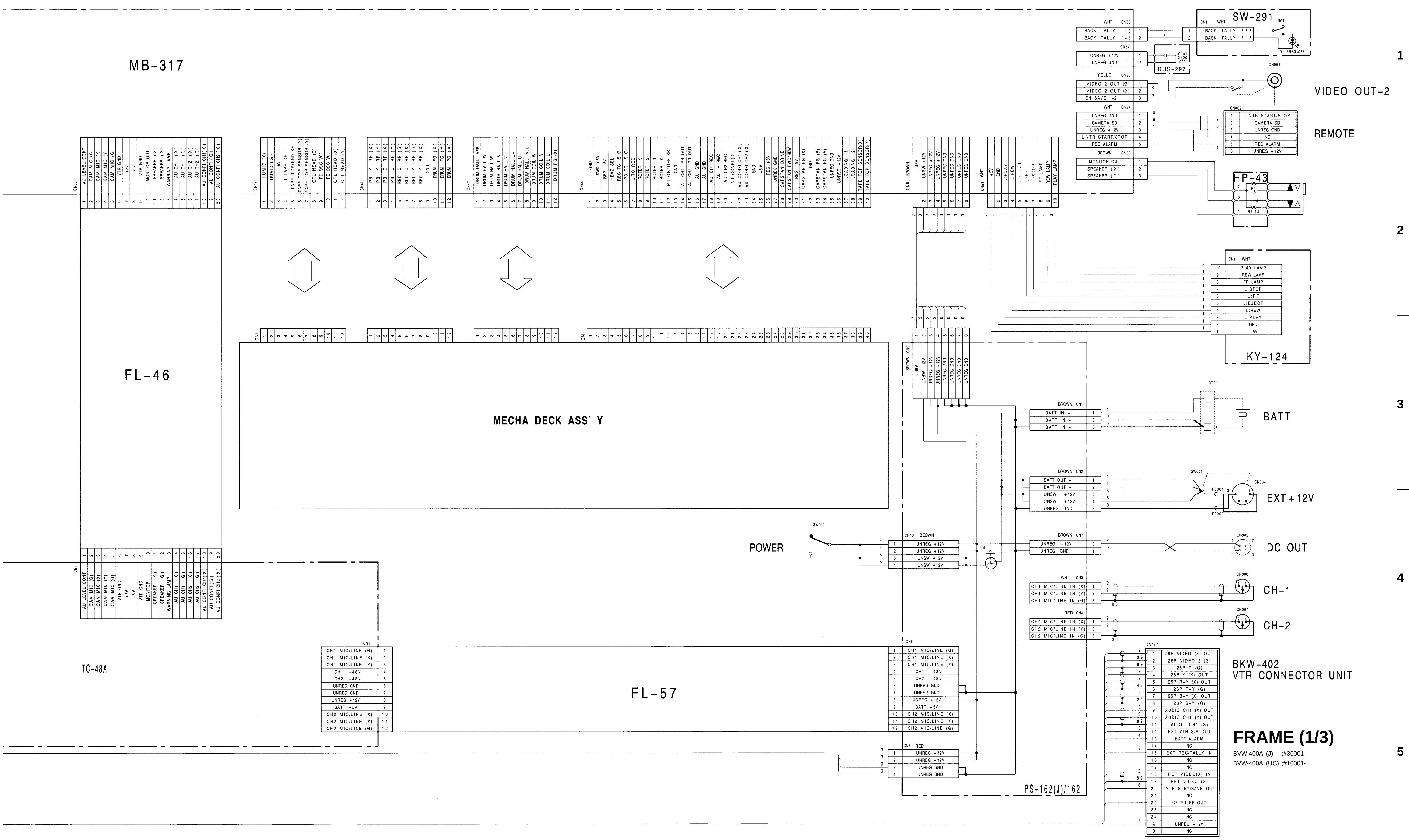
MB-317 (2/2) BOARD

1-634-075-11
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-

(Page 11-135 to 138 are missing.)

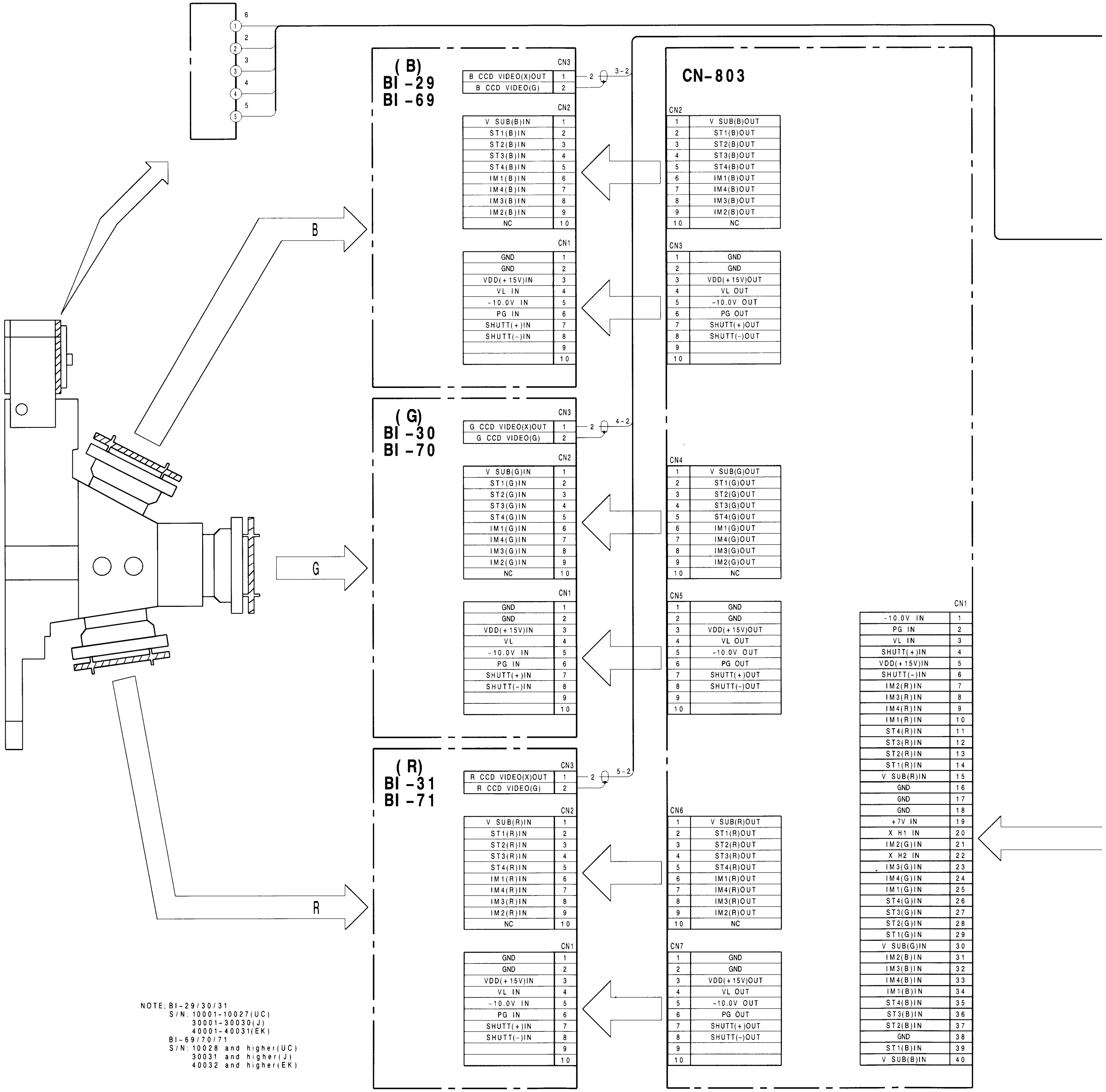

MIC
CN011
CN25 YELLOW
CAMERA MIC(X)
CAMERA MIC(Y)
CAMERA MIC(G)
VF
CN101
VTR SAVE IN
MARKER ON/OFF
CCIR/EIA
AUDIO DISP ON/OFF
VF VIDEO(G)
ZEBRA ON/OFF
VF VIDEO (X)
AUDIO CONT OUT
H:BATT IND
REC/ALARM
+9.3V (VF)
GND
NC
CN905-1
FRAME(2/3)
CN50
CN55
CN52 WHT
CN51 BLK
CN57 RED
CN53 WHT
CN62 BLK
CN61 WHT
CN58 BLK
CCD ASS' Y
LENS
CN102
L:PB CONT
L:VTR START/STOP
UNREG GND(VF)
AUTO +5V
IRIS CONT
UNREG +12V
IRIS POS
IRIS REM/LOCAL
EXTENDER ON/OFF
TO FRAME(2/3)
CN906-2
CN906-1
SW-220
S1 VTR SAVE
STBY
SAVE
S2 GAIN
0dB
+9dB
+18dB
BARS
CAM
DCC OFF
DCC ON
S3 OUTPUT/DCC
D1 1SS133
D2 1SS133
PRESET
MEMORY A
MEMORY B
S4 WHT BAL
S5 CTDM
CN2
VTR SAVE/STBY
+18dB CONT
+9dB CONT
BARS ENBL
DCC ON/OFF
WHT BAL PRESET
MEMORY A/B
CHU/CCU
CTDM ON
CN24-A5
CN24-A3
CN24-B3
CN24-B5
CN24-A5
CN24-B4
CN24-A4
CN24-B2
CN24-A1
CN24-B1
CN54 BLK
SW-357B
CN1
L:VTR START/STOP
WHT ENBL
BLK ENBL
CN2
SHT TAKE
SHT SEL
R1 100
S1
S2
S3
CN61
CN509
CN505
CN501
CN508
CN507
CN502
CN503
CN504
CN506
TAPE DETECT
+5V OUT
CN4
CN3
CN2
IF-298AJ/298A
CN1
CN5
CN-400
VIDEO OUT-1
CN014
GEN LOCK VIDEO IN
CN015
VDR001
R001
C001
TC IN
CN016
TC OUT
CN017
CN22 BLK
VR-77
R1 10k
CN21 WHT
PB ADAPTOR
CN01A
CN1
FL-45
CN2
MONITOR SPEAKER
SP001
CN11 WHT
SPEAKER (X)
SPEAKER (G)
VR-70
RV1
RV2
RV3
CN10 BROWN
MONITOR
MONITOR LEVEL
ALARM TONE
ALARM LEVEL
1
2
3
4
5
A
B
C
D
E
F
G
H

MARK	BOARD	CHANGE INFORMATION	SERIAL NO.
*	SW-220	D1,D2 1S1555 → 1SS177	J ;30691- UC;10619-
		D1,D2 1SS177 → 1SS133	J ;31126-


MB-317
FL-46
TC-48A
MECHA DECK ASS' Y
FL-57
PS-162(J)/162
SW-291
DUS-297
HP-43
KY-124
VIDEO OUT-2
REMOTE
BATT
EXT+12V
DC OUT
CH-1
CH-2
POWER
BKW-402
VTR CONNECTOR UNIT
FRAME (1/3)
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
1
2
3
4
5

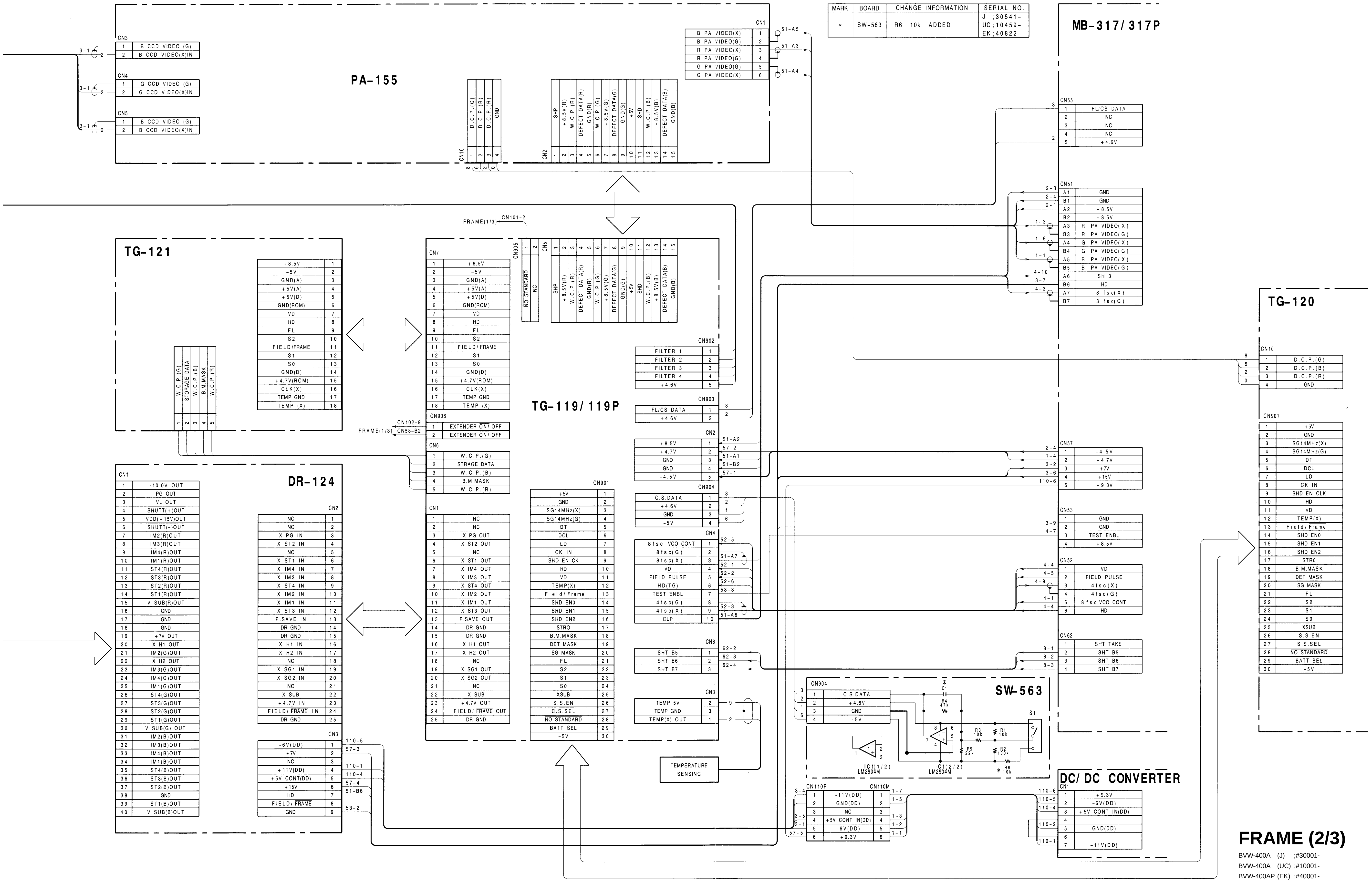
(Page 11-143 to 145 are missing.)

FRAME (2/3)


6
①
2
②
3
③
4
④
5
⑤
B
G
R
(B)
BI -29
BI -69
CN3
B CCD VIDEO(X)OUT 1
B CCD VIDEO(G) 2
2
3-2
CN2
V SUB(B)IN 1
ST1(B)IN 2
ST2(B)IN 3
ST3(B)IN 4
ST4(B)IN 5
IM1(B)IN 6
IM4(B)IN 7
IM3(B)IN 8
IM2(B)IN 9
NC 10
CN1
GND 1
GND 2
VDD(+15V)IN 3
VL IN 4
-10.0V IN 5
PG IN 6
SHUTT(+)IN 7
SHUTT(-)IN 8
9
10
(G)
BI -30
BI -70
CN3
G CCD VIDEO(X)OUT 1
G CCD VIDEO(G) 2
2
4-2
CN2
V SUB(G)IN 1
ST1(G)IN 2
ST2(G)IN 3
ST3(G)IN 4
ST4(G)IN 5
IM1(G)IN 6
IM4(G)IN 7
IM3(G)IN 8
IM2(G)IN 9
NC 10
CN1
GND 1
GND 2
VDD(+15V)IN 3
VL 4
-10.0V IN 5
PG IN 6
SHUTT(+)IN 7
SHUTT(-)IN 8
9
10
(R)
BI -31
BI -71
CN3
R CCD VIDEO(X)OUT 1
R CCD VIDEO(G) 2
2
5-2
CN2
V SUB(R)IN 1
ST1(R)IN 2
ST2(R)IN 3
ST3(R)IN 4
ST4(R)IN 5
IM1(R)IN 6
IM4(R)IN 7
IM3(R)IN 8
IM2(R)IN 9
NC 10
CN1
GND 1
GND 2
VDD(+15V)IN 3
VL IN 4
-10.0V IN 5
PG IN 6
SHUTT(+)IN 7
SHUTT(-)IN 8
9
10
CN-803
CN2
1 V SUB(B)OUT
2 ST1(B)OUT
3 ST2(B)OUT
4 ST3(B)OUT
5 ST4(B)OUT
6 IM1(B)OUT
7 IM4(B)OUT
8 IM3(B)OUT
9 IM2(B)OUT
10 NC
CN3
1 GND
2 GND
3 VDD(+15V)OUT
4 VL OUT
5 -10.0V OUT
6 PG OUT
7 SHUTT(+)OUT
8 SHUTT(-)OUT
9
10
CN4
1 V SUB(G)OUT
2 ST1(G)OUT
3 ST2(G)OUT
4 ST3(G)OUT
5 ST4(G)OUT
6 IM1(G)OUT
7 IM4(G)OUT
8 IM3(G)OUT
9 IM2(G)OUT
10 NC
CN5
1 GND
2 GND
3 VDD(+15V)OUT
4 VL OUT
5 -10.0V OUT
6 PG OUT
7 SHUTT(+)OUT
8 SHUTT(-)OUT
9
10
CN6
1 V SUB(R)OUT
2 ST1(R)OUT
3 ST2(R)OUT
4 ST3(R)OUT
5 ST4(R)OUT
6 IM1(R)OUT
7 IM4(R)OUT
8 IM3(R)OUT
9 IM2(R)OUT
10 NC
CN7
1 GND
2 GND
3 VDD(+15V)OUT
4 VL OUT
5 -10.0V OUT
6 PG OUT
7 SHUTT(+)OUT
8 SHUTT(-)OUT
9
10
CN1
-10.0V IN 1
PG IN 2
VL IN 3
SHUTT(+)IN 4
VDD(+15V)IN 5
SHUTT(-)IN 6
IM2(R)IN 7
IM3(R)IN 8
IM4(R)IN 9
IM1(R)IN 10
ST4(R)IN 11
ST3(R)IN 12
ST2(R)IN 13
ST1(R)IN 14
V SUB(R)IN 15
GND 16
GND 17
GND 18
+7V IN 19
X H1 IN 20
IM2(G)IN 21
X H2 IN 22
IM3(G)IN 23
IM4(G)IN 24
IM1(G)IN 25
ST4(G)IN 26
ST3(G)IN 27
ST2(G)IN 28
ST1(G)IN 29
V SUB(G)IN 30
IM2(B)IN 31
IM3(B)IN 32
IM4(B)IN 33
IM1(B)IN 34
ST4(B)IN 35
ST3(B)IN 36
ST2(B)IN 37
GND 38
ST1(B)IN 39
V SUB(B)IN 40

NOTE; BI-29/30/31
S/N: 10001-10027(UC)
30001-30030(J)
40001-40031(EK)
BI-69/70/71
S/N: 10028 and higher(UC)
30031 and higher(J)
40032 and higher(EK)

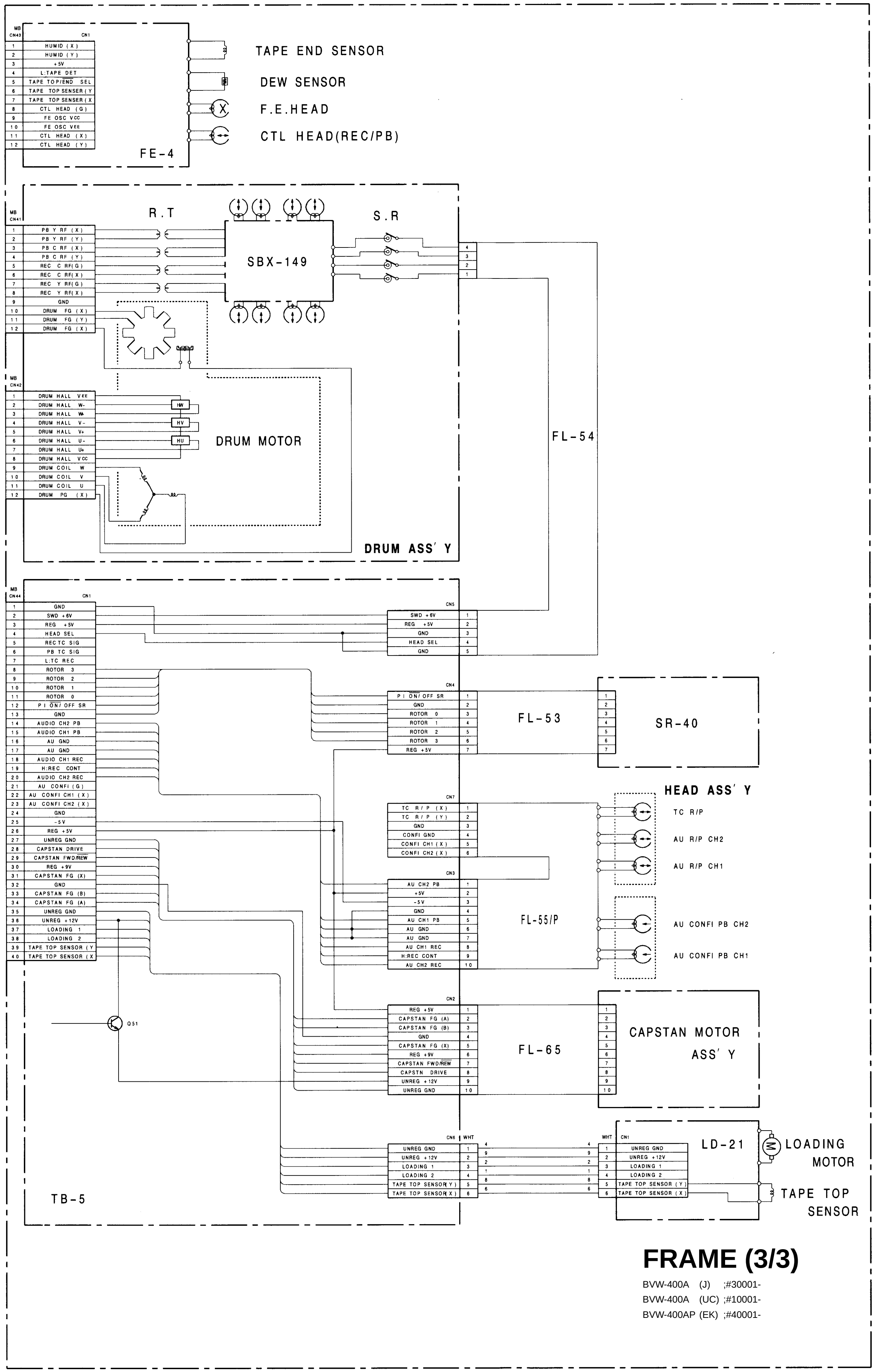
MARK	BOARD	CHANGE INFORMATION	SERIAL NO.
*	SW-563	R6 10k ADDED	J ;30541- UC;10459- EK;40822-


PA-155
TG-121
DR-124
TG-119/119P
MB-317/317P
TG-120
SW-563
DC/DC CONVERTER
TEMPERATURE SENSING
CN1
CN2
CN3
CN4
CN5
CN6
CN7
CN8
CN10
CN51
CN52
CN53
CN55
CN57
CN62
CN110F
CN110M
CN901
CN902
CN903
CN904
CN905
CN906
FRAME(1/3) CN101-2
FRAME(1/3) CN58-B2
CN102-9
IC1(1/2) LM2904M
IC1(2/2) LM2904M
R6 10k
1
2
3
4
5
I
J
K
L
M
N
O
P

FRAME (2/3)

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

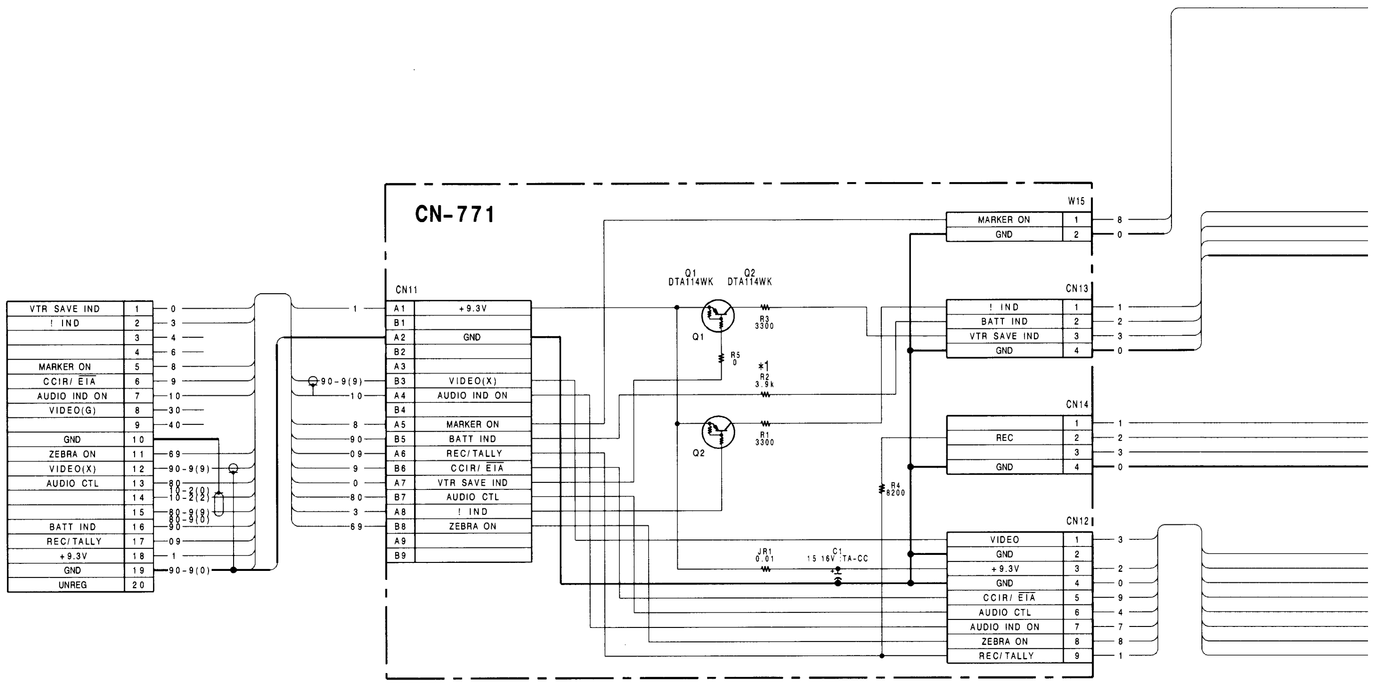
(Page 11-149 is missing.)


FE-4
TAPE END SENSOR
DEW SENSOR
F.E.HEAD
CTL HEAD(REC/PB)
HUMID (X)
HUMID (Y)
+5V
L.TAPE DET
TAPE TOP/END SEL
TAPE TOP SENSER (Y)
TAPE TOP SENSER (X)
CTL HEAD (G)
FE OSC VCC
FE OSC VEE
CTL HEAD (X)
CTL HEAD (Y)
R.T
S.R
SBX-149
PB Y RF (X)
PB Y RF (Y)
PB C RF (X)
PB C RF (Y)
REC C RF (G)
REC C RF (X)
REC Y RF (G)
REC Y RF (X)
GND
DRUM FG (X)
DRUM FG (Y)
DRUM FG (X)
DRUM MOTOR
DRUM HALL VEE
DRUM HALL W-
DRUM HALL W+
DRUM HALL V-
DRUM HALL V+
DRUM HALL U-
DRUM HALL U+
DRUM HALL VCC
DRUM COIL W
DRUM COIL V
DRUM COIL U
DRUM PG (X)
HW
HV
HU
DRUM ASS'Y
FL-54
SWD +6V
REG +5V
GND
HEAD SEL
REC TC SIG
PB TC SIG
L.TC REC
ROTOR 3
ROTOR 2
ROTOR 1
ROTOR 0
P I ON/OFF SR
AUDIO CH2 PB
AUDIO CH1 PB
AU GND
AUDIO CH1 REC
H:REC CONT
AUDIO CH2 REC
AU CONFI (G)
AU CONFI CH1 (X)
AU CONFI CH2 (X)
-5V
REG +5V
UNREG GND
CAPSTAN DRIVE
CAPSTAN FWD/REW
REG +9V
CAPSTAN FG (X)
CAPSTAN FG (B)
CAPSTAN FG (A)
UNREG +12V
LOADING 1
LOADING 2
TAPE TOP SENSOR (Y)
TAPE TOP SENSOR (X)
FL-53
SR-40
HEAD ASS'Y
TC R/P
AU R/P CH2
AU R/P CH1
TC R/P (X)
TC R/P (Y)
CONFI GND
CONFI CH1 (X)
CONFI CH2 (X)
FL-55/P
AU CONFI PB CH2
AU CONFI PB CH1
FL-65
CAPSTAN MOTOR ASS'Y
CAPSTN DRIVE
Q51
TB-5
LD-21
LOADING MOTOR
TAPE TOP SENSOR
WHT
CN1
CN2
CN3
CN4
CN5
CN6
CN7
MB CN41
MB CN42
MB CN43
MB CN44

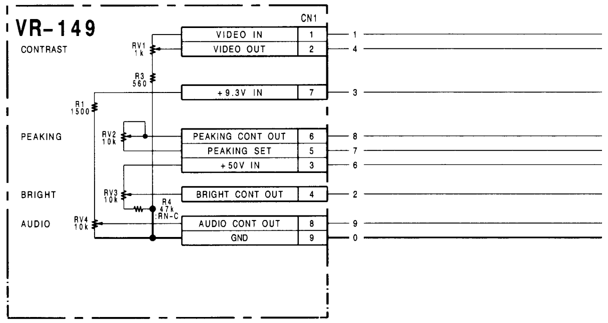
FRAME (3/3)

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

VIEWFINDER
CN-771; CONNECTOR FOR VF CABLE
LP-64; REC LED
LP-65; BATT/TALLY, VTR SAVE LED
LP-66; FRONT TALLY LED
VR-149; VOLUME CONTROL
SW-562; SWITCH BOARD
VF-50; VIEWFINDER


CN-771
VTR SAVE IND
! IND
MARKER ON
CCIR/ EIA
AUDIO IND ON
VIDEO(G)
GND
ZEBRA ON
VIDEO(X)
AUDIO CTL
BATT IND
REC/TALLY
+9.3V
GND
UNREG
CN11
A1 +9.3V
A2 GND
B3 VIDEO(X)
A4 AUDIO IND ON
A5 MARKER ON
B5 BATT IND
A6 REC/TALLY
B6 CCIR/ EIA
A7 VTR SAVE IND
B7 AUDIO CTL
A8 ! IND
B8 ZEBRA ON
Q1 DTA114WK
Q2 DTA114WK
R3 3300
R5 0
*1
R2 3.9k
R1 3300
R4 8200
JR1 0.01
C1 15 16V :TA-CC
W15
MARKER ON
GND
CN13
! IND
BATT IND
VTR SAVE IND
GND
CN14
REC
GND
CN12
VIDEO
GND
+9.3V
GND
CCIR/ EIA
AUDIO CTL
AUDIO IND ON
ZEBRA ON
REC/TALLY

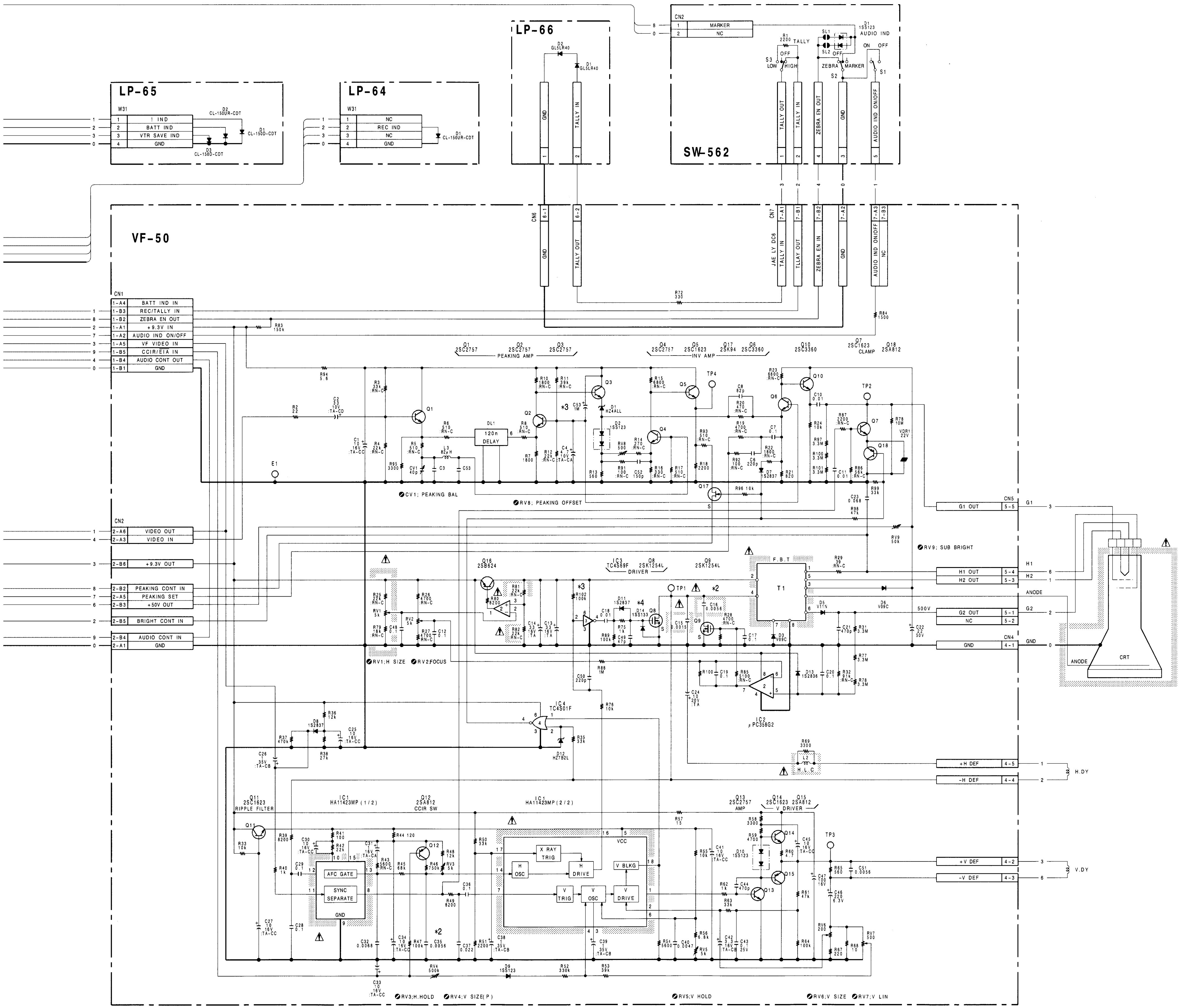
MARK	BOARD	CHANGE INFORMATION	SERIAL No.
*1	CN-771	R2 0 → 3.9k	J ;30061- UC ;10033-
*2	VF-50	C16 0.0047 → 0.0056	J ;30351- UC ;10368-
		C35 0.0047 → 0.0056	J ;30311- UC ;10348-
*3	VF-50	C53 D14 R102 } ADDED	J ;30561- UC ;10459-
*4	VF-50	D14 1SS119 → 1SS177	J ;30691- UC ;10619-


VR-149
CONTRAST
PEAKING
BRIGHT
AUDIO
CN1
VIDEO IN
VIDEO OUT
+9.3V IN
PEAKING CONT OUT
PEAKING SET
+50V IN
BRIGHT CONT OUT
AUDIO CONT OUT
GND
RV1 1k
R3 560
R1 1500
RV2 10k
RV3 10k
R4 47k :RN-C
RV4 10k

注意１；⚠印及び▨で囲まれた部品は安全性を維持するために重要な部品です。従って交換する時は必ず指定の部品を使って下さい。

NOTE:

The shaded and ⚠ -marked components are critical to safety.
Replace only with same components as specified.


LP-65
W31
! IND
BATT IND
VTR SAVE IND
GND
LP-64
NC
REC IND
NC
GND
LP-66
GND
TALLY IN
CN2
MARKER
NC
TALLY
AUDIO IND
ZEBRA
MARKER
SW-562
TALLY OUT
TALLY IN
ZEBRA EN OUT
GND
AUDIO IND ON/OFF
VF-50
CN6
CN7
TALLY OUT
JAE LV DC6 TALLY IN
TLLAY OUT
ZEBRA EN IN
AUDIO IND ON/OFF
NC
CN1
BATT IND IN
REC/TALLY IN
ZEBRA EN OUT
+9.3V IN
AUDIO IND ON/OFF
VF VIDEO IN
CCIR/EIA IN
AUDIO CONT OUT
GND
PEAKING AMP
INV AMP
CLAMP
CV1; PEAKING BAL
RV8; PEAKING OFFSET
RV9; SUB BRIGHT
CN2
VIDEO OUT
VIDEO IN
+9.3V OUT
PEAKING CONT IN
PEAKING SET
+50V OUT
BRIGHT CONT IN
AUDIO CONT IN
GND
DRIVER
F.B.T
T1
RV1;H SIZE
RV2;FOCUS
CN5
G1 OUT
H1 OUT
H2 OUT
G2 OUT
NC
CN4
GND
ANODE
CRT
+H DEF
-H DEF
H.DY
H.L.C
+V DEF
-V DEF
V.DY
RIPPLE FILTER
CCIR SW
AFC GATE
SYNC SEPARATE
X RAY TRIG
H OSC
H DRIVE
V BLKG
V TRIG
V OSC
V DRIVE
VCC
V DRIVER
RV3;H.HOLD
RV4;V SIZE(P)
RV5;V HOLD
RV6;V SIZE
RV7;V LIN

VF-50 BOARD
1-643-703-11, 12

SW-562 BOARD
1-643-709-11

VR-149 BOARD
1-643-708-11

LP-64 BOARD
1-643-704-11

LP-65 BOARD
1-643-705-11

LP-66 BOARD
1-643-706-11

CN-771 BOARD
1-643-707-11, 12

BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-

(Page 11-157 and 158 are missing.)

CD-89B: DC-DC CONVERTER

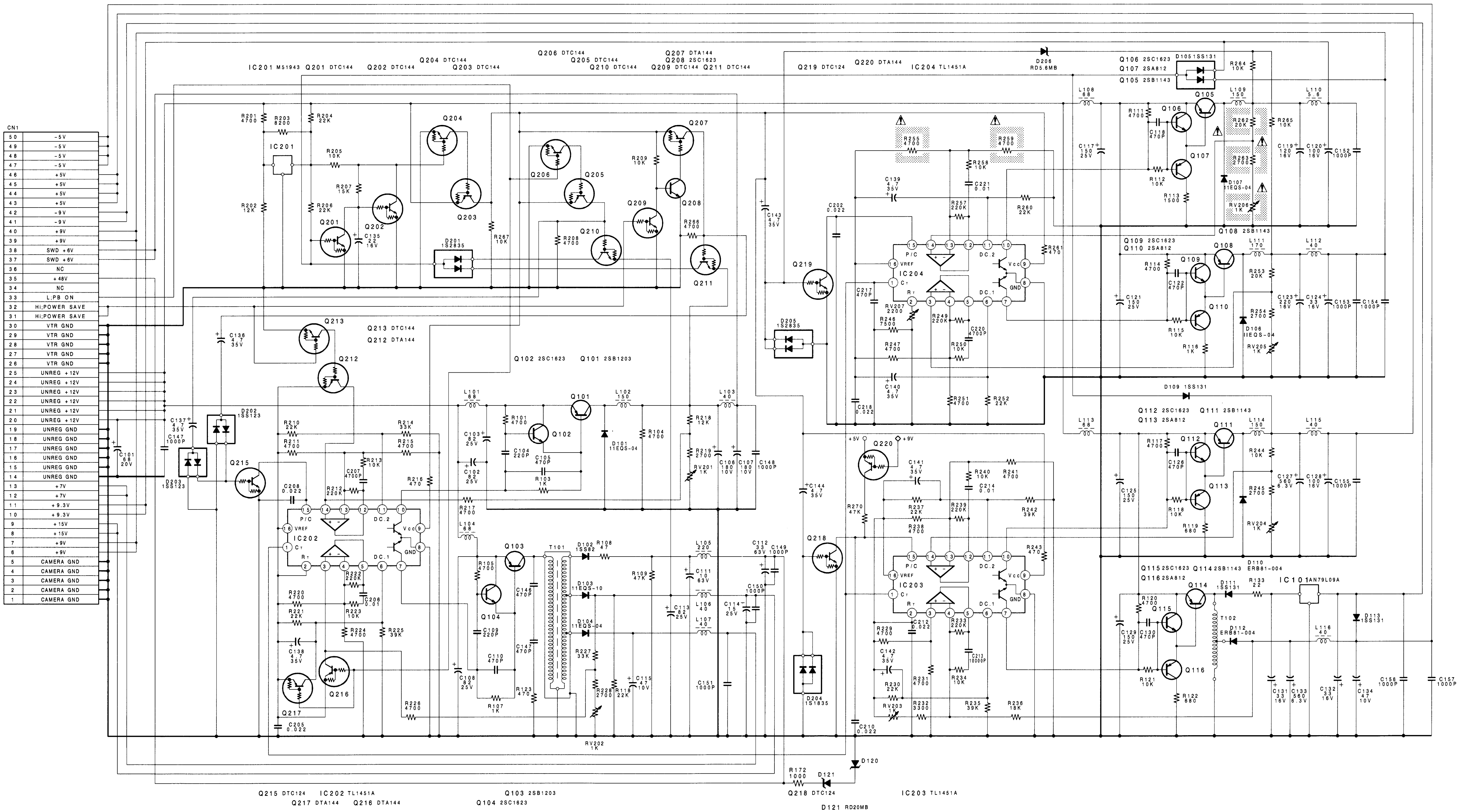
1

2

3

4

5


CN1
50 -5V
49 -5V
48 -5V
47 -5V
46 +5V
45 +5V
44 +5V
43 +5V
42 -9V
41 -9V
40 +9V
39 +9V
38 SWD +6V
37 SWD +6V
36 NC
35 +48V
34 NC
33 L.PB ON
32 Hi;POWER SAVE
31 Hi;POWER SAVE
30 VTR GND
29 VTR GND
28 VTR GND
27 VTR GND
26 VTR GND
25 UNREG +12V
24 UNREG +12V
23 UNREG +12V
22 UNREG +12V
21 UNREG +12V
20 UNREG +12V
19 UNREG GND
18 UNREG GND
17 UNREG GND
16 UNREG GND
15 UNREG GND
14 UNREG GND
13 +7V
12 +7V
11 +9.3V
10 +9.3V
9 +15V
8 +15V
7 +9V
6 +9V
5 CAMERA GND
4 CAMERA GND
3 CAMERA GND
2 CAMERA GND
1 CAMERA GND
IC201 M51943 Q201 DTC144 Q202 DTC144
Q204 DTC144 Q203 DTC144
Q206 DTC144 Q205 DTC144 Q210 DTC144
Q207 DTA144 Q208 2SC1623 Q209 DTC144 Q211 DTC144
Q219 DTC124 Q220 DTA144 IC204 TL1451A
D206 RD5.6MB
Q106 2SC1623 Q107 2SA812 Q105 2SB1143 D105 1SS131
Q213 DTC144 Q212 DTA144
Q102 2SC1623 Q101 2SB1203
D109 1SS131
Q109 2SC1623 Q110 2SA812 Q108 2SB1143
Q112 2SC1623 Q111 2SB1143 Q113 2SA812
Q115 2SC1623 Q114 2SB1143 Q116 2SA812 D110 ERB81-004
IC101 AN79L09A
IC204
IC202
IC203
T101
T102
Q215 DTC124 IC202 TL1451A
Q217 DTA144 Q216 DTA144
Q103 2SB1203
Q104 2SC1623
R172 1000 D121
Q218 DTC124
D121 RD20MB
D120 RD20MB
IC203 TL1451A

注意1；⚠印及び▨で囲まれた部品は安全性を維持するために重要な部品です。従って交換する時は必ず指定の部品を使って下さい。

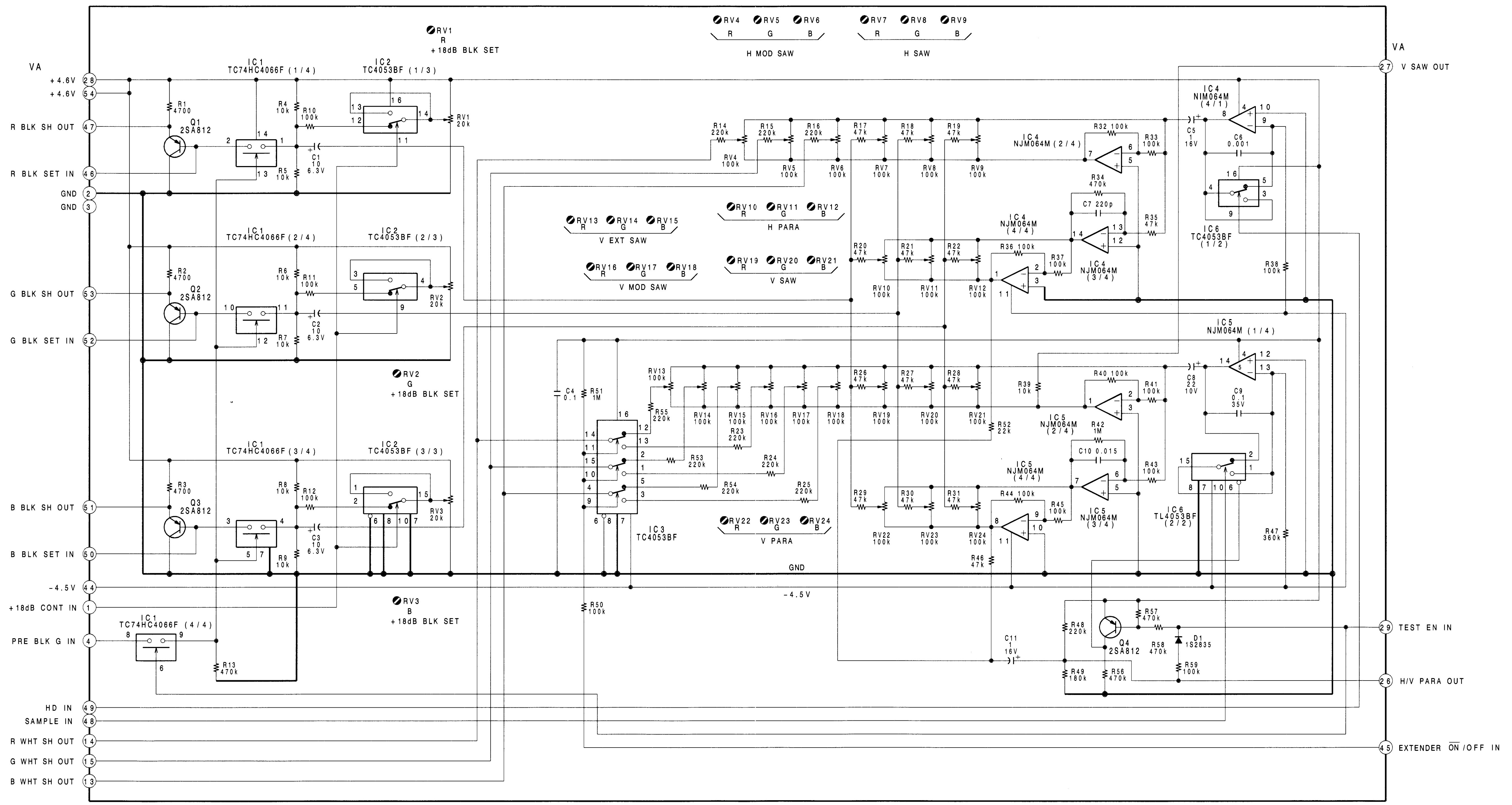
NOTE:

The shaded and ⚠ -marked components are critical to safety.
Replace only with same components as specified.

CD-89B BOARD

1-464-995-21
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-

A B C D E F G H

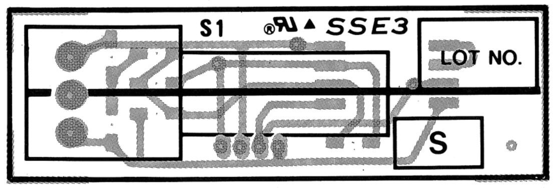

VA
+4.6V 28
+4.6V 54
R BLK SH OUT 47
R BLK SET IN 46
GND 2
GND 3
G BLK SH OUT 53
G BLK SET IN 52
B BLK SH OUT 51
B BLK SET IN 50
-4.5V 44
+18dB CONT IN 1
PRE BLK G IN 4
HD IN 49
SAMPLE IN 48
R WHT SH OUT 14
G WHT SH OUT 15
B WHT SH OUT 13
V SAW OUT 27
TEST EN IN 29
H/V PARA OUT 26
EXTENDER ON/OFF IN 45
IC1 TC74HC4066F (1/4)
IC1 TC74HC4066F (2/4)
IC1 TC74HC4066F (3/4)
IC1 TC74HC4066F (4/4)
IC2 TC4053BF (1/3)
IC2 TC4053BF (2/3)
IC2 TC4053BF (3/3)
IC3 TC4053BF
IC4 NJM064M (1/4)
IC4 NJM064M (2/4)
IC4 NJM064M (3/4)
IC4 NJM064M (4/4)
IC5 NJM064M (1/4)
IC5 NJM064M (2/4)
IC5 NJM064M (3/4)
IC5 NJM064M (4/4)
IC6 TC4053BF (1/2)
IC6 TL4053BF (2/2)
Q1 2SA812
Q2 2SA812
Q3 2SA812
Q4 2SA812
D1 1S2835
RV1 R +18dB BLK SET
RV2 G +18dB BLK SET
RV3 B +18dB BLK SET
RV4 RV5 RV6 R G B H MOD SAW
RV7 RV8 RV9 R G B H SAW
RV10 RV11 RV12 R G B H PARA
RV13 RV14 RV15 R G B V EXT SAW
RV16 RV17 RV18 R G B V MOD SAW
RV19 RV20 RV21 R G B V SAW
RV22 RV23 RV24 R G B V PARA
GND
-4.5V
VA

BH-1263 BOARD

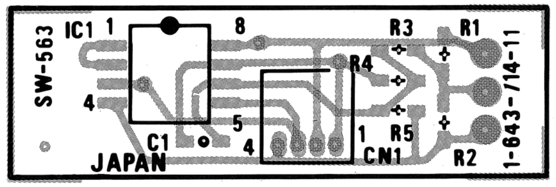
BVW-400A (J) ;#30001-
BVW-400A (UC) ;#10001-
BVW-400AP (EK) ;#40001-

SECTION 12
PRINTED WIRING BOARDS

S/N J ; 30001 through 30110
UC ; 10001 through 10077


S1
SSE3
LOT NO.
S

SW-563 -COMPONENT SIDE-
1-643-714-11
BVW-400A
BVW-400AP

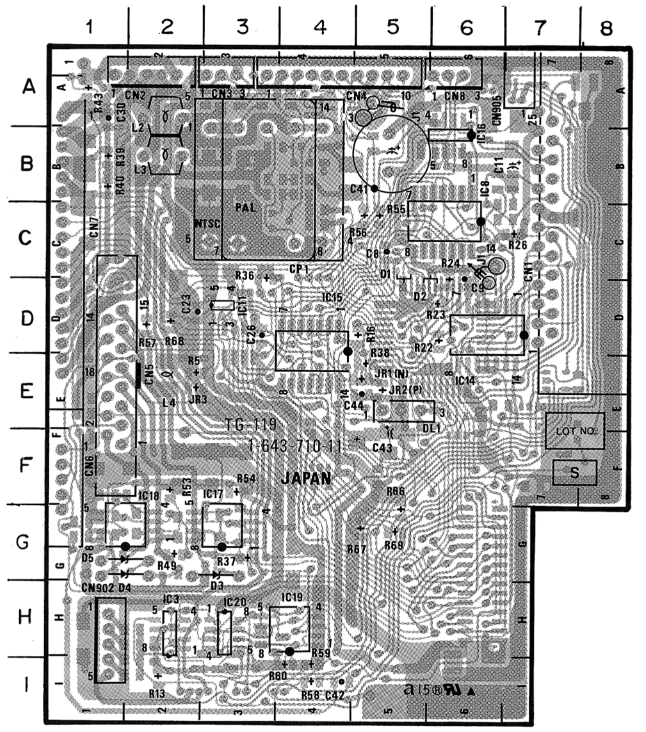

SW-563
IC1
1
8
4
5
C1
JAPAN
R3
R1
R4
R5
CN1
R2
1-643-714-11

SW-563 -SOLDERING SIDE-
1-643-714-11
BVW-400A
BVW-400AP

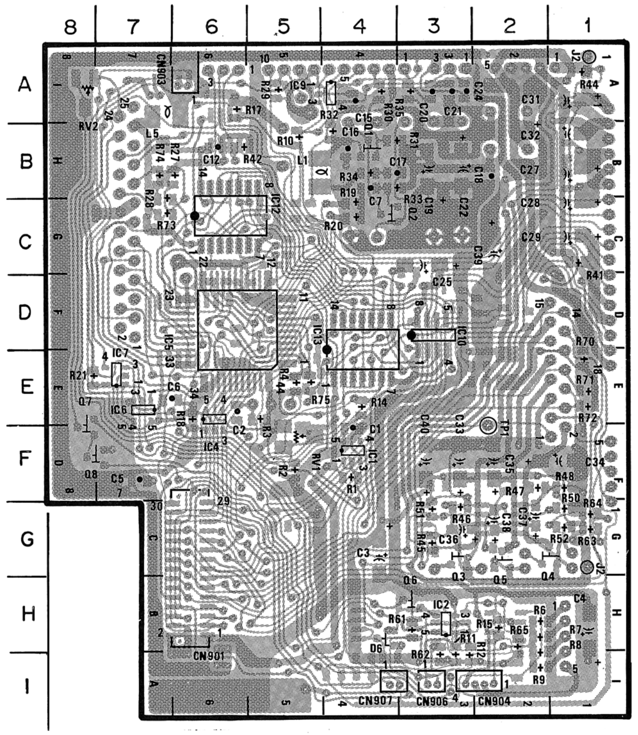
S/N J ; 30001 through 30215
UC ; 10001 through 10157

TG-119; TIMING GENERATOR

CN1	C-7
CN2	A-2
CN3	A-3
CN4	A-4
CN5	E-2
CN6	F-1
CN7	C-1
CN8	A-6
CN901	H-6
CN902	H-1
CN903	A-7
CN904	A-2
CN905	A-6
CN906	A-3
CN907	A-4
CP1	C-4
DL1	F-5
D1	C-5
D2	D-5
D3	H-3
D4	H-2
D5	G-1
D6	H-4
IC1	F-4
IC2	H-3
IC3	H-2
IC4	F-6
IC5	F-7
IC6	E-7
IC7	E-7
IC9	A-5
IC10	D-3
IC11	D-3
IC12	G-5
IC13	D-5
IC14	E-6
IC15	D-4
IC16	B-6
IC17	F-3
IC18	F-2
IC19	H-4
IC20	H-3
JR1	E-5
JR2	E-5
JR3	E-2
Q1	B-4
Q2	C-3
Q3	H-3
Q4	H-2
Q5	H-2
Q6	H-3
Q7	E-8
Q8	F-8
RV1	F-5
RV2	B-8
TP1	F-2

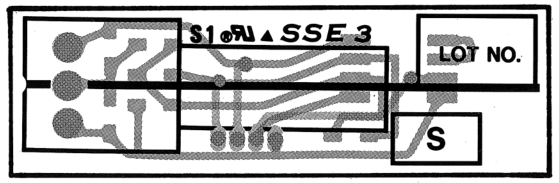

1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
I
PAL
NTSC
TG-119
1-643-710-11
JAPAN
LOT NO.
S

TG-119/119P -COMPONENT SIDE-
1-643-710-11
BVW-400A
BVW-400AP

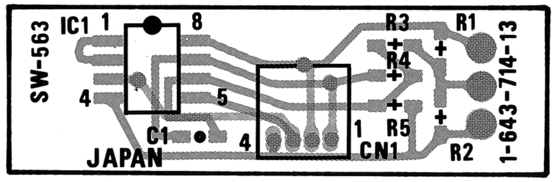

8
7
6
5
4
3
2
1
A
B
C
D
E
F
G
H
I
CN901
CN907
CN906
CN904

TG-119/119P -SOLDERING SIDE-
1-643-710-11
BVW-400A
BVW-400AP

S/N J ; 30111 and higher
UC ; 10078 and higher


S1
SSE 3
LOT NO.
S

SW-563 -COMPONENT SIDE-
1-643-714-12,13
BVW-400A
BVW-400AP

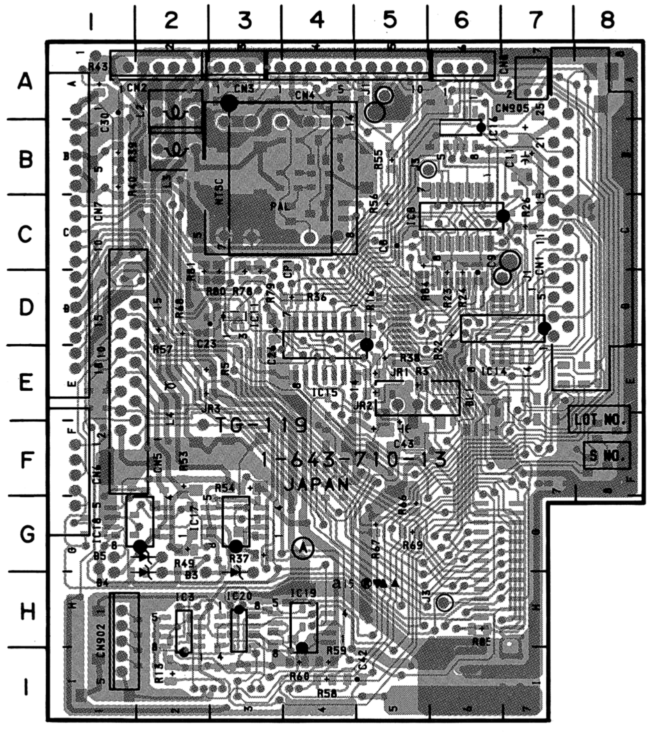

SW-563
IC1
1
8
4
5
C1
JAPAN
4
1
R5
CN1
R2
R3
R1
R4
1-643-714-13

SW-563 -SOLDERING SIDE-
1-643-714-12,13
BVW-400A
BVW-400AP

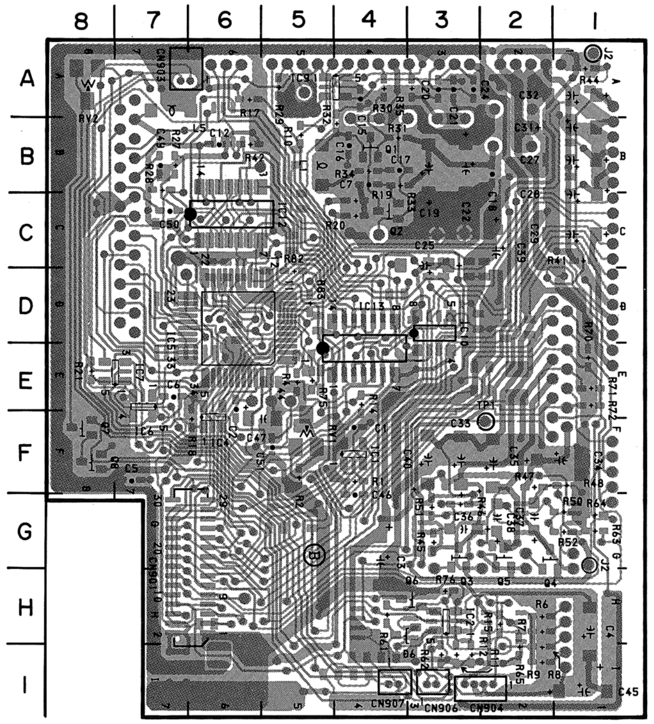
S/N J ; 30216 and higher
UC ; 10158 and higher

TG-119P; TIMING GENERATOR

CN1	D-7
CN2	A-1
CN3	A-3
CN4	A-4
CN5	F-2
CN6	F-1
CN7	C-1
CN8	A-7
CN901	G-6
CN902	I-1
CN903	A-7
CN904	I-3
CN905	A-6
CN906	I-3
CN907	I-4
CP1	C-3
DL1	E-6
D3	H-2
D4	H-1
D5	G-1
D6	I-4
IC1	F-4
IC2	H-3
IC3	H-2
IC4	F-6
IC5	D-7
IC6	F-7
IC7	E-7
IC8	C-5
IC9	A-5
IC10	D-3
IC11	D-3
IC12	C-5
IC13	D-4
IC14	E-6
IC15	E-4
IC16	B-6
IC17	G-2
IC18	G-1
IC19	H-4
IC20	H-3
JR1	E-5
JR2	E-5
JR3	E-3
Q1	B-4
Q2	C-4
Q3	H-3
Q4	H-2
Q5	H-2
Q6	H-3
Q7	F-8
Q8	F-7
RV1	F-5
RV2	B-8
TP1	E-2


1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
I
TG-119
1-643-710-13
JAPAN
LOT NO.
S NO.

TG-119/119P -COMPONENT SIDE-
1-643-710-12,13
BVW-400A
BVW-400AP

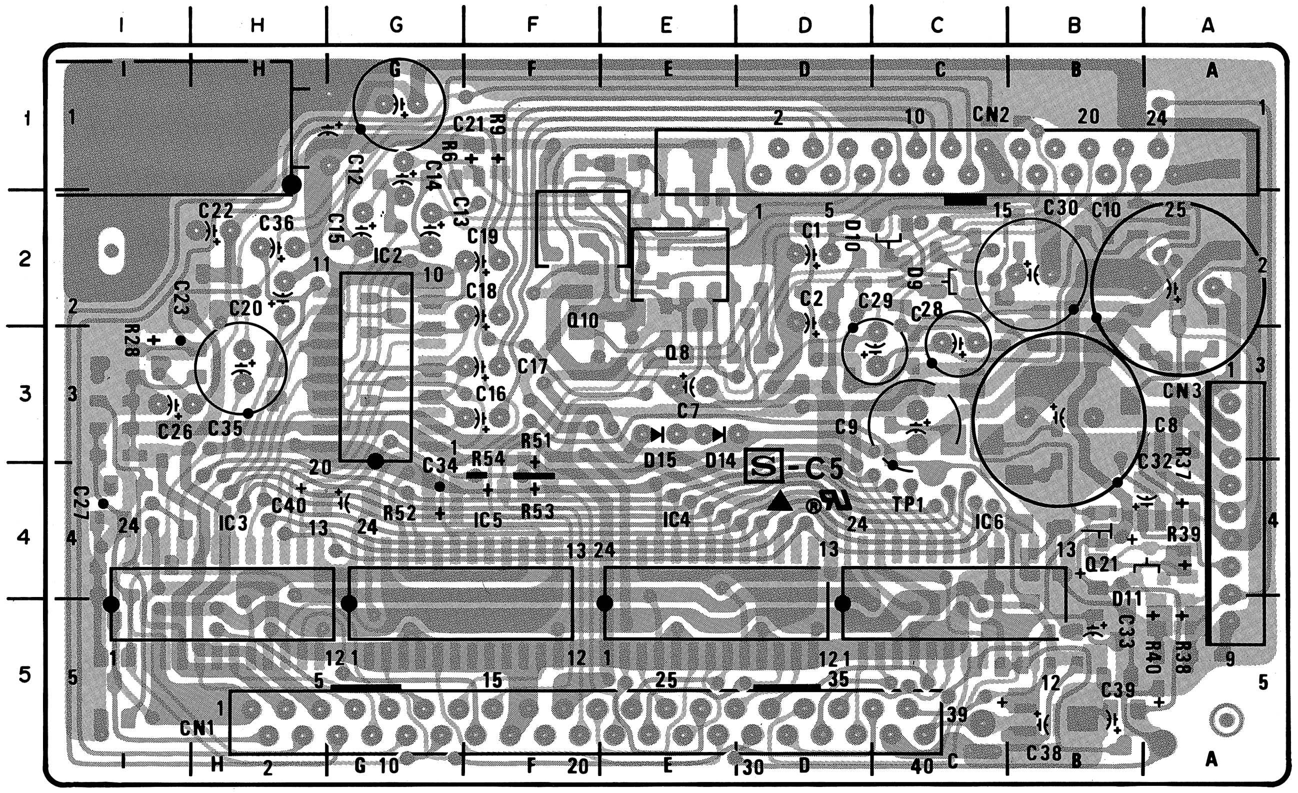

8
7
6
5
4
3
2
1
A
B
C
D
E
F
G
H
I

TG-119/119P -SOLDERING SIDE-
1-643-710-12,13
BVW-400A
BVW-400AP

(Page 12-3 to 5 are missing.)

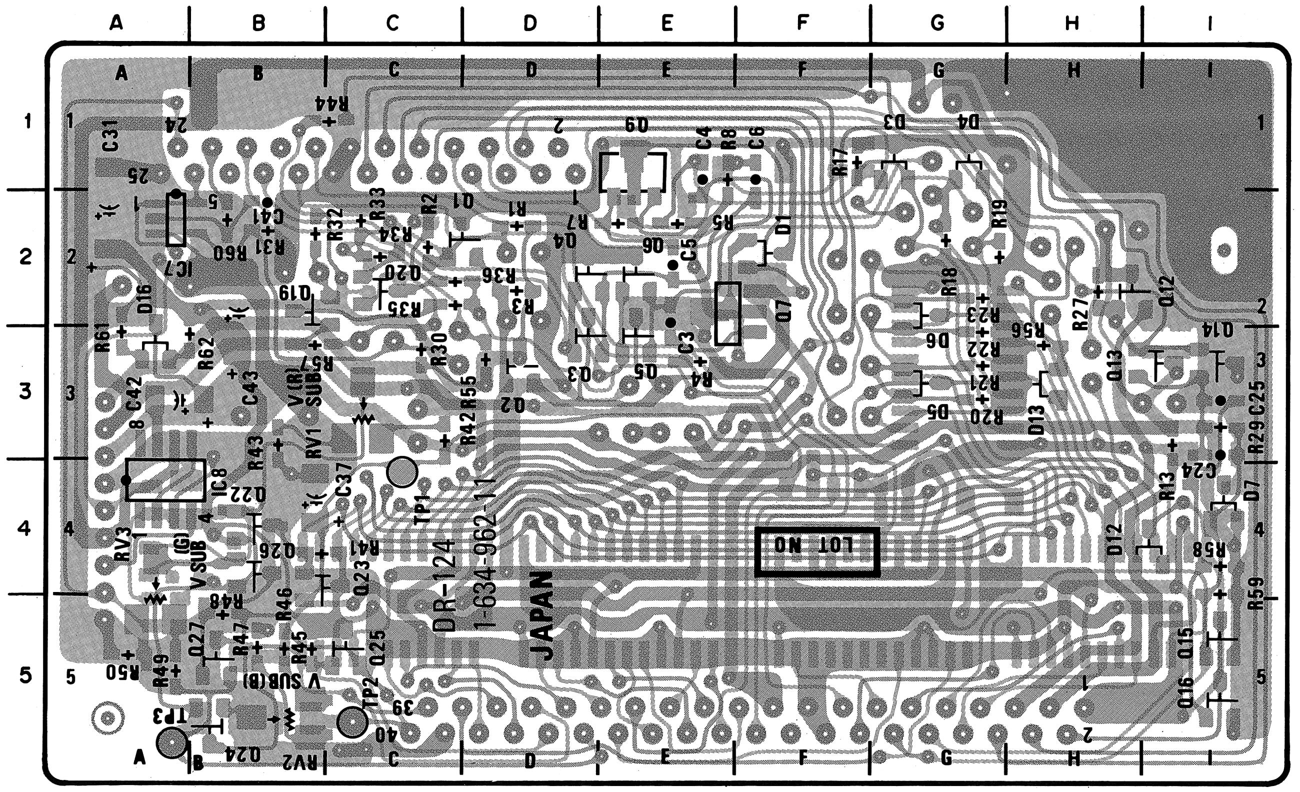
DR-124; CCD DRIVE

CN1	H-5	TP1	C-4
CN2	C-1	TP2	C-5
CN3	A-3	TP3	A-5
D1	F-2		
D3	G-1		
D4	G-1		
D5	G-3		
D6	G-3		
D7	I-4		
D9	C-2		
D10	D-2		
D11	B-5		
D12	H-4		
D13	H-3		
D14	E-3		
D15	E-3		
D16	A-2		
IC2	G-2		
IC3	H-4		
IC4	E-4		
IC5	F-4		
IC6	C-4		
IC7	A-2		
IC8	B-4		
Q1	D-2		
Q2	D-3		
Q3	D-3		
Q4	D-2		
Q5	E-3		
Q6	E-2		
Q7	F-2		
Q8	E-3		
Q9	E-1		
Q10	F-2		
Q12	I-2		
Q13	H-3		
Q14	I-3		
Q15	I-5		
Q16	I-5		
Q19	B-2		
Q20	C-2		
Q21	B-4		
Q22	B-4		
Q23	C-4		
Q24	B-5		
Q25	C-5		
Q26	B-4		
Q27	B-5		
RV1	B-3		
RV2	B-5		
RV3	A-4		


I
H
G
F
E
D
C
B
A
1
2
3
4
5
CN1
CN2
CN3
IC2
IC3
IC4
IC5
IC6
TP1
S-C5

DR-124 -COMPONENT SIDE-

1-634-962-11
BVW-400A
BVW-400AP


A
B
C
D
E
F
G
H
I
1
2
3
4
5
IC7
IC8
RV1
RV2
RV3
TP1
TP2
TP3
V SUB (B)
VSUB (G)
V (R) SUB
LOT NO
JAPAN
DR-124
1-634-962-11

DR-124 -SOLDERING SIDE-

1-634-962-11
BVW-400A
BVW-400AP

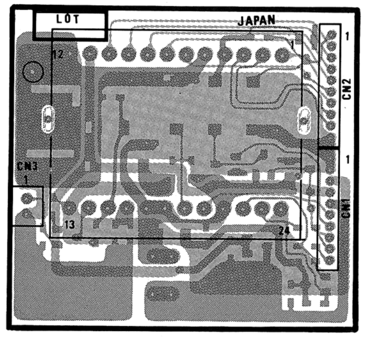
(Page 12-8 to 11 are missing.)

BI-29, BI-30, BI-31; CCD BIAS

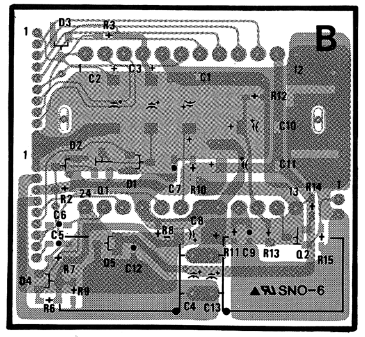
S/N J ; 30001 through 30030
UC ; 10001 through 10027

BI-69, BI-70, BI-71; CCD BIAS
CN-803; CONNECTOR

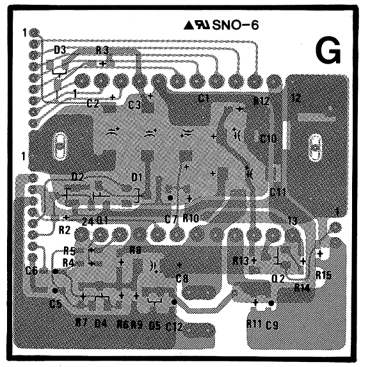
S/N J ; 30031 and higher
UC ; 10028 and higher


LOT
JAPAN
CN2
CN3
CN1

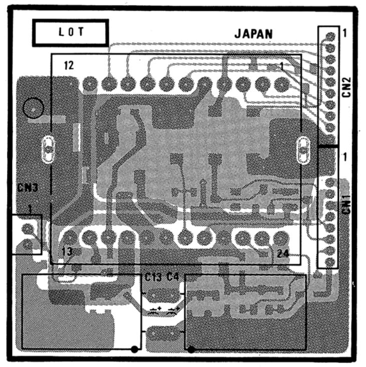
BI-29 -COMPONENT SIDE-
1-630-554-12
BI-69
1-644-491-11
BVW-400A
BVW-400AP



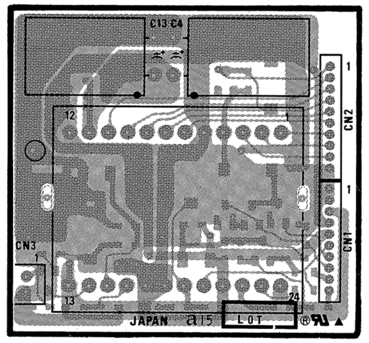
BI-29 -SOLDERING SIDE-
1-630-554-12
BI-69
1-644-491-11
BVW-400A
BVW-400AP



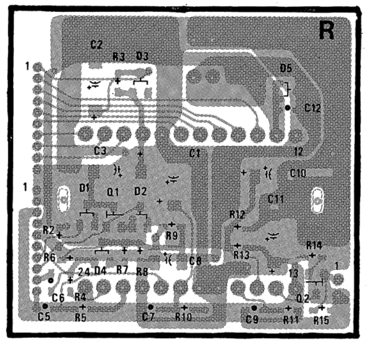
BI-30 -COMPONENT SIDE-
1-630-555-11
BI-70
1-644-492-11
BVW-400A
BVW-400AP


LOT
JAPAN
CN2
CN3
CN1

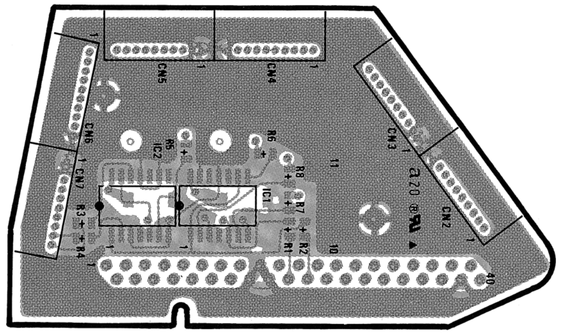
BI-30 -SOLDERING SIDE-
1-630-555-11
BI-70
1-644-492-11
BVW-400A
BVW-400AP


CN2
CN3
CN1
JAPAN
LOT

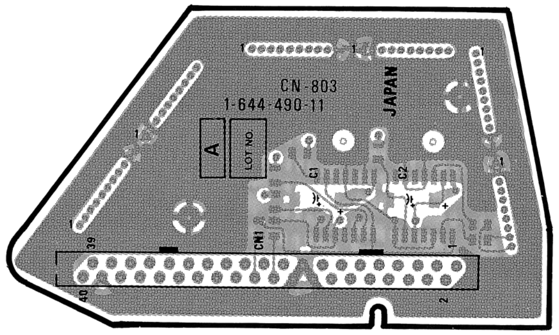
BI-31 -COMPONENT SIDE-
1-630-556-11
BI-71
1-644-493-11
BVW-400A
BVW-400AP



BI-31 -SOLDERING SIDE-
1-630-556-11
BI-71
1-644-493-11
BVW-400A
BVW-400AP


CN5
CN4
CN3
CN2
CN6
CN7
IC1
IC2

CN-803 -COMPONENT SIDE-
1-644-490-11
BVW-400A
BVW-400AP


CN-803
1-644-490-11
JAPAN
A
LOT NO
CN1

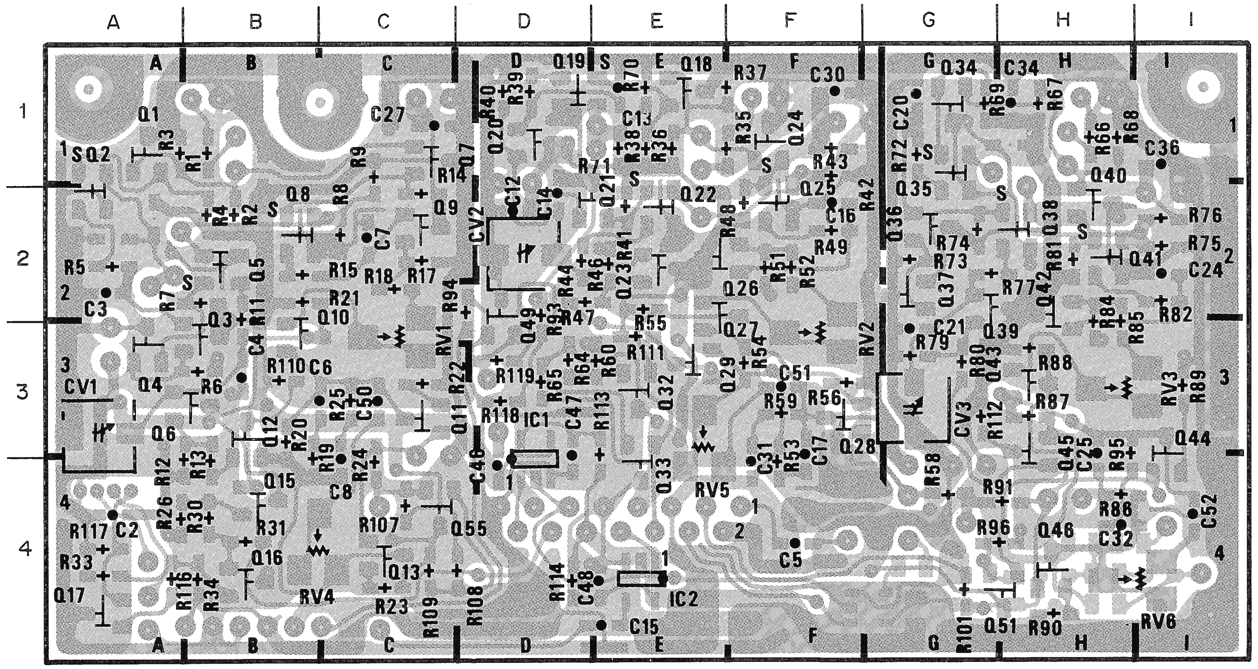
CN-803 -SOLDERING SIDE-
1-644-490-11
BVW-400A
BVW-400AP

(Page 12-14 to 17 are missing.)

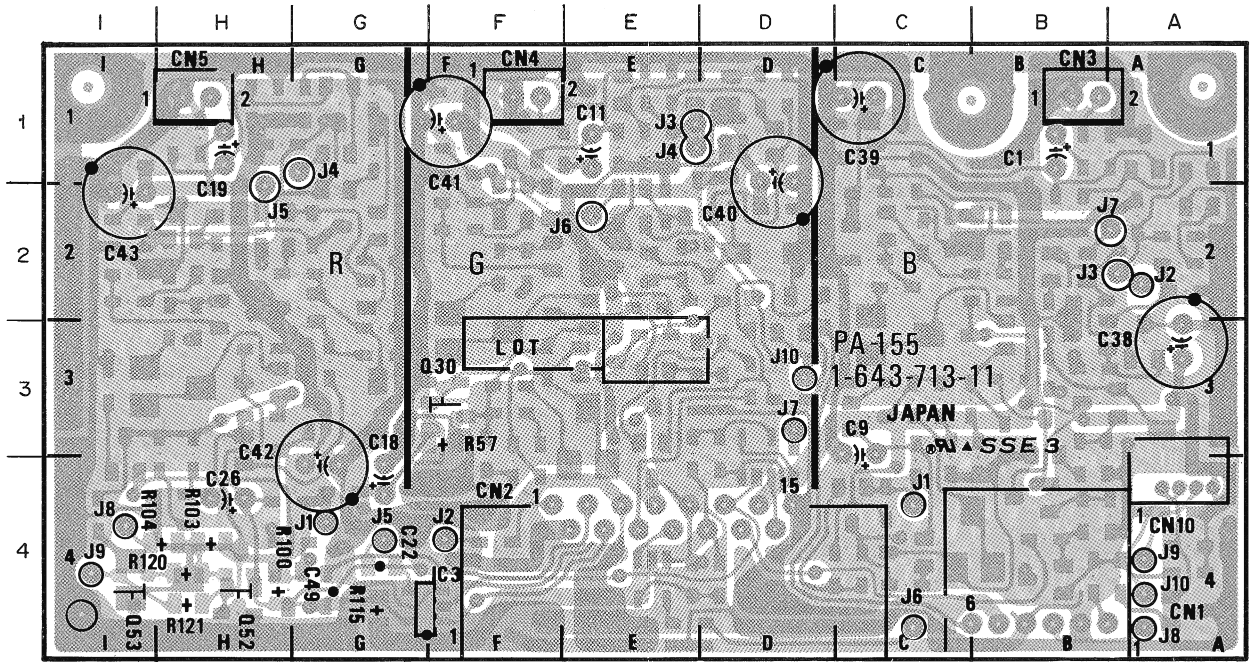
PA-155; CCD PRE-AMP

S/N J ; 30001 through 30215
UC ; 10001 through 10157

CN1	A-4	Q32	E-3
CN2	F-4	Q33	E-4
CN3	B-1	Q34	G-1
CN4	F-1	Q35	G-2
CN5	H-1	Q36	G-2
CN10	A-4	Q37	G-2
		Q38	H-2
CV1	A-3	Q39	G-3
CV2	D-2	Q40	H-1
CV3	G-3	Q41	H-2
		Q42	H-2
IC1	D-3	Q43	G-3
IC2	E-4	Q44	I-3
IC3	F-4	Q45	H-3
		Q46	H-4
Q1	A-1	Q49	D-3
Q2	A-1	Q51	G-4
Q3	B-2	Q52	I-4
Q4	A-3	Q53	I-4
Q5	B-2	Q55	C-3
Q6	A-3		
Q7	D-1	RV1	C-3
Q8	B-2	RV2	F-3
Q9	C-2	RV3	I-3
Q10	C-2	RV4	B-4
Q11	C-3	RV5	E-4
Q12	B-3	RV6	I-4
Q13	C-3		
Q15	B-4		
Q16	B-4		
Q17	A-4		
Q18	E-1		
Q19	D-1		
Q20	D-1		
Q21	E-2		
Q22	E-3		
Q24	F-1		
Q25	F-1		
Q26	F-2		
Q27	F-3		
Q28	F-3		
Q29	E-3		
Q30	F-3		



PA-155 -COMPONENT SIDE-
1-643-713-11
BVW-400A
BVW-400AP

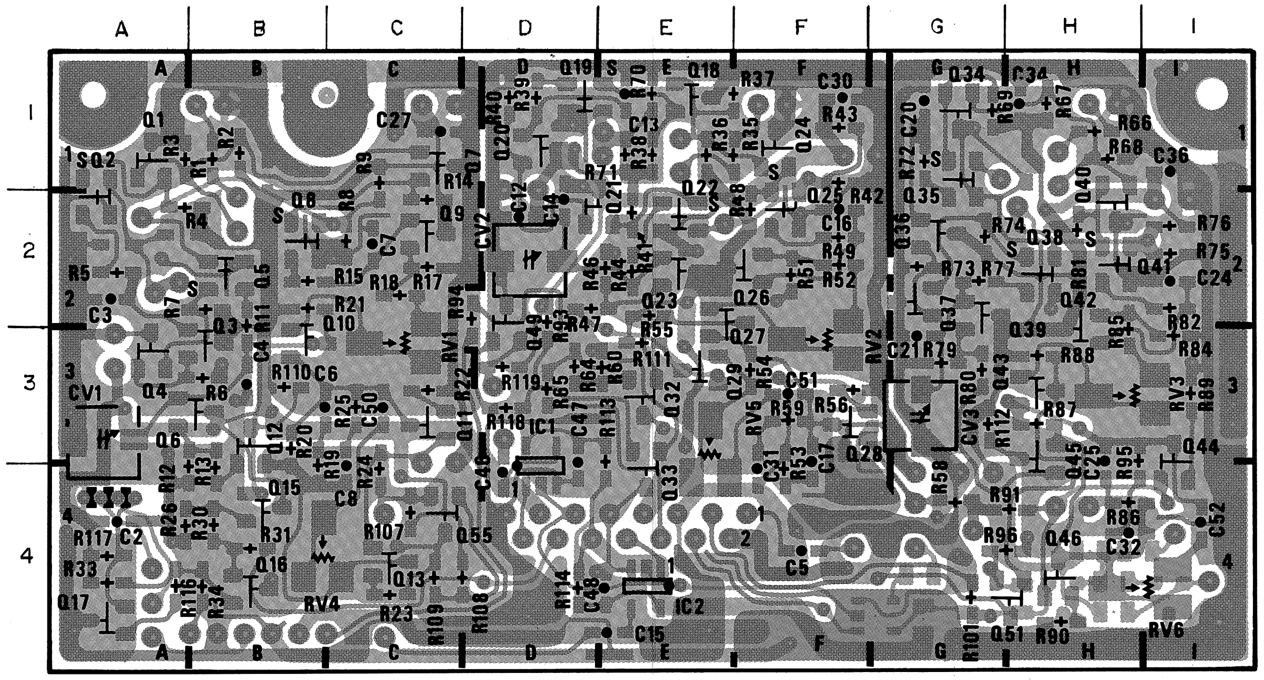


PA-155 -SOLDERING SIDE-
1-643-713-11
BVW-400A
BVW-400AP

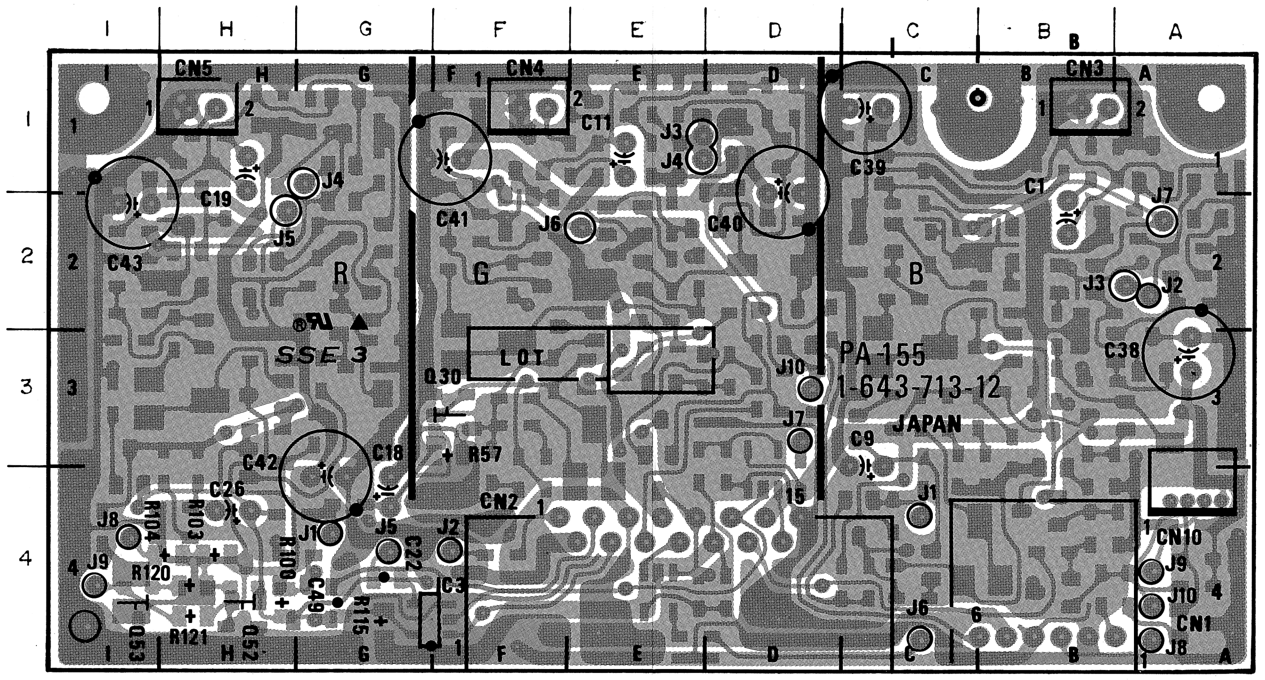
PA-155; CCD PRE-AMP

S/N J ; 30216 and higher
UC ; 10158 and higher

CN1	A-4	Q32	E-3
CN2	F-4	Q33	E-4
CN3	B-1	Q34	G-1
CN4	F-1	Q35	G-2
CN5	H-1	Q36	G-2
CN10	A-4	Q37	G-2
		Q38	H-2
CV1	A-3	Q39	G-3
CV2	D-2	Q40	H-1
CV3	G-3	Q41	H-2
		Q42	H-2
IC1	D-3	Q43	G-3
IC2	E-4	Q44	I-3
IC3	F-4	Q45	H-3
		Q46	H-4
Q1	A-1	Q49	D-3
Q2	A-1	Q51	G-4
Q3	B-2	Q52	I-4
Q4	A-3	Q53	I-4
Q5	B-2	Q55	C-3
Q6	A-3		
Q7	D-1	RV1	C-3
Q8	B-2	RV2	F-3
Q9	C-2	RV3	I-3
Q10	C-2	RV4	B-4
Q11	C-3	RV5	E-4
Q12	B-3	RV6	I-4
Q13	C-3		
Q15	B-4		
Q16	B-4		
Q17	A-4		
Q18	E-1		
Q19	D-1		
Q20	D-1		
Q21	E-2		
Q22	E-3		
Q24	F-1		
Q25	F-1		
Q26	F-2		
Q27	F-3		
Q28	F-3		
Q29	E-3		
Q30	F-3		



PA-155 -COMPONENT SIDE-
1-643-713-12
BVW-400A
BVW-400AP



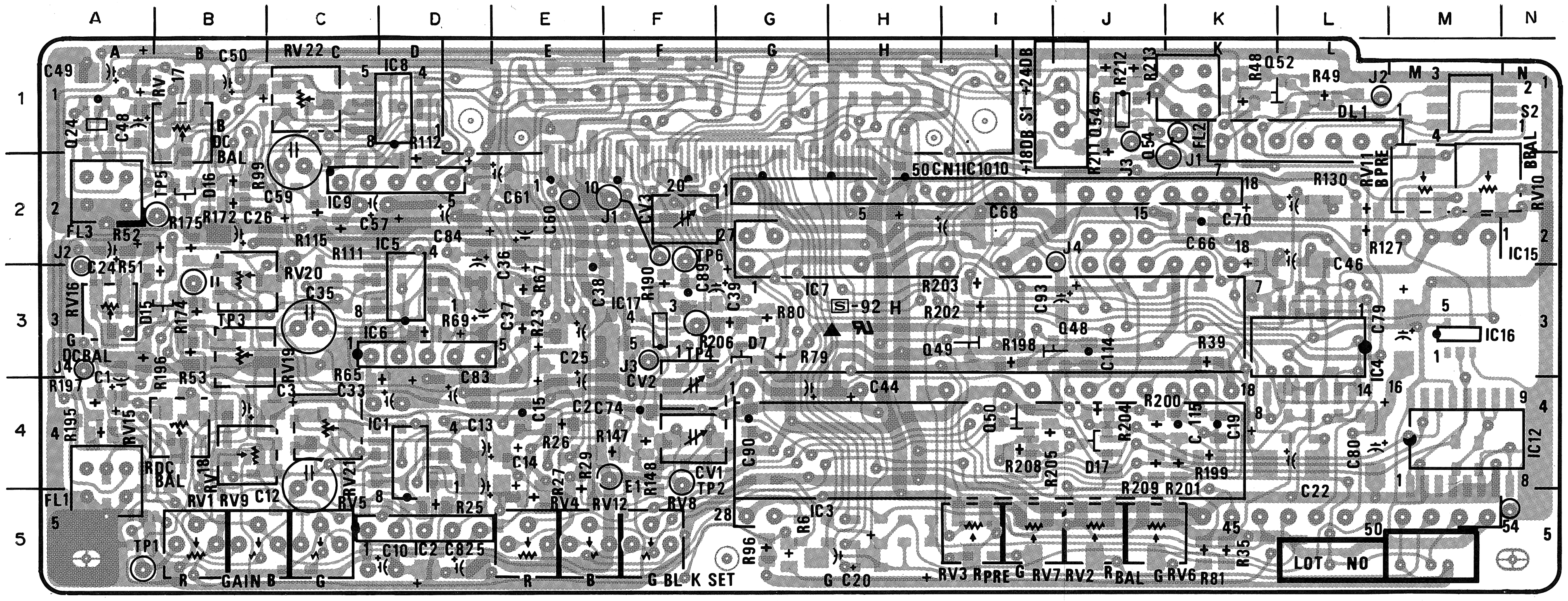
PA-155 -SOLDERING SIDE-
1-643-713-12
BVW-400A
BVW-400AP

(Page 12-20 to 23 are missing.)

VA-104; VIDEO AMP, BLOCK SET, SHADING COMPE

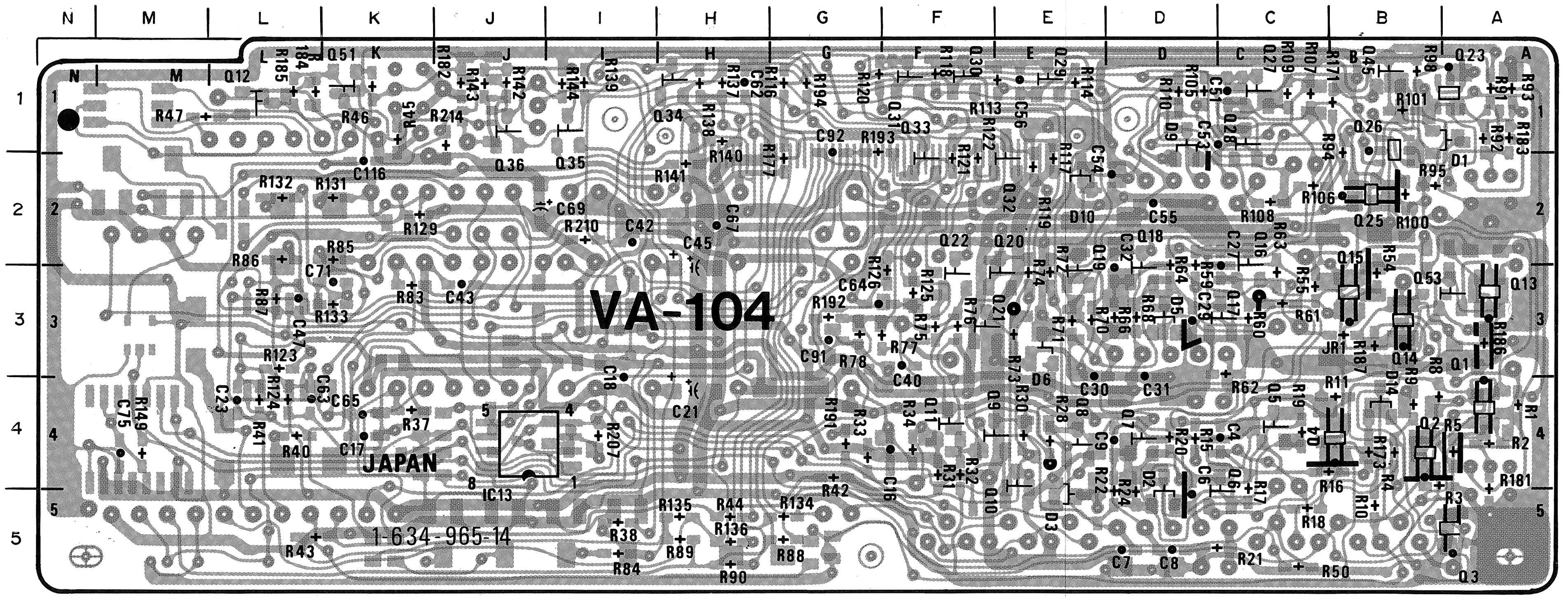
S/N J ; 30001 through 30215
UC ; 10001 through 10157

CN1	I-2
CV1	F-4
CV2	F-3
CV3	F-2
DL1	L-1
D1	A-2
D2	D-4
D3	E-5
D5	D-3
D6	E-4
D7	G-3
D9	D-1
D10	E-2
D14	B-4
D15	A-3
D16	B-2
D17	J-4
E1	E-4
FL1	A-5
FL2	K-1
FL3	A-2
IC1	C-4
IC2	D-5
IC3	G-5
IC4	L-3
IC5	D-2
IC6	C-3
IC7	G-3
IC8	D-1
IC9	C-2
IC10	I-2
IC12	N-4
IC13	J-5
IC15	N-2
IC16	M-3
IC17	F-3
Q1	A-3
Q2	B-4
Q3	A-5
Q4	B-4
Q5	C-4
Q6	C-4
Q7	D-4
Q8	E-4
Q9	F-4
Q10	F-5
Q11	F-4
Q12	L-1
Q13	A-3
Q14	B-3
Q15	B-3
Q16	C-2
Q17	C-3
Q18	D-2
Q19	E-2
Q20	E-2
Q21	E-3
Q22	F-2
Q23	A-1
Q24	A-1
Q25	B-2
Q26	B-1
Q27	C-1
Q28	C-1
Q29	E-1
Q30	F-1
Q31	F-1
Q32	E-2
Q33	F-1
Q34	H-1
Q35	I-2
Q36	J-2
Q44	F-3
Q45	B-1
Q48	J-3
Q49	H-3
Q50	I-4
Q51	K-1
Q52	K-1
Q53	B-3
Q54	J-1
RV1	B-5
RV2	J-5
RV3	I-5
RV4	E-5
RV5	C-5
RV6	K-5
RV7	I-5
RV8	F-5
RV9	B-5
RV10	N-2
RV11	L-2
RV12	F-5
RV15	A-4
RV16	A-3
RV17	B-1
RV18	B-4
RV19	C-3
RV20	C-3
RV21	C-4
RV22	C-1
S1	I-1
S2	N-1
TP1	A-5
TP2	F-4
TP3	B-3
TP4	F-3
TP5	B-2
TP6	F-2



VA-104 -COMPONENT SIDE-

1-634-965-14
BVW-400A
BVW-400AP



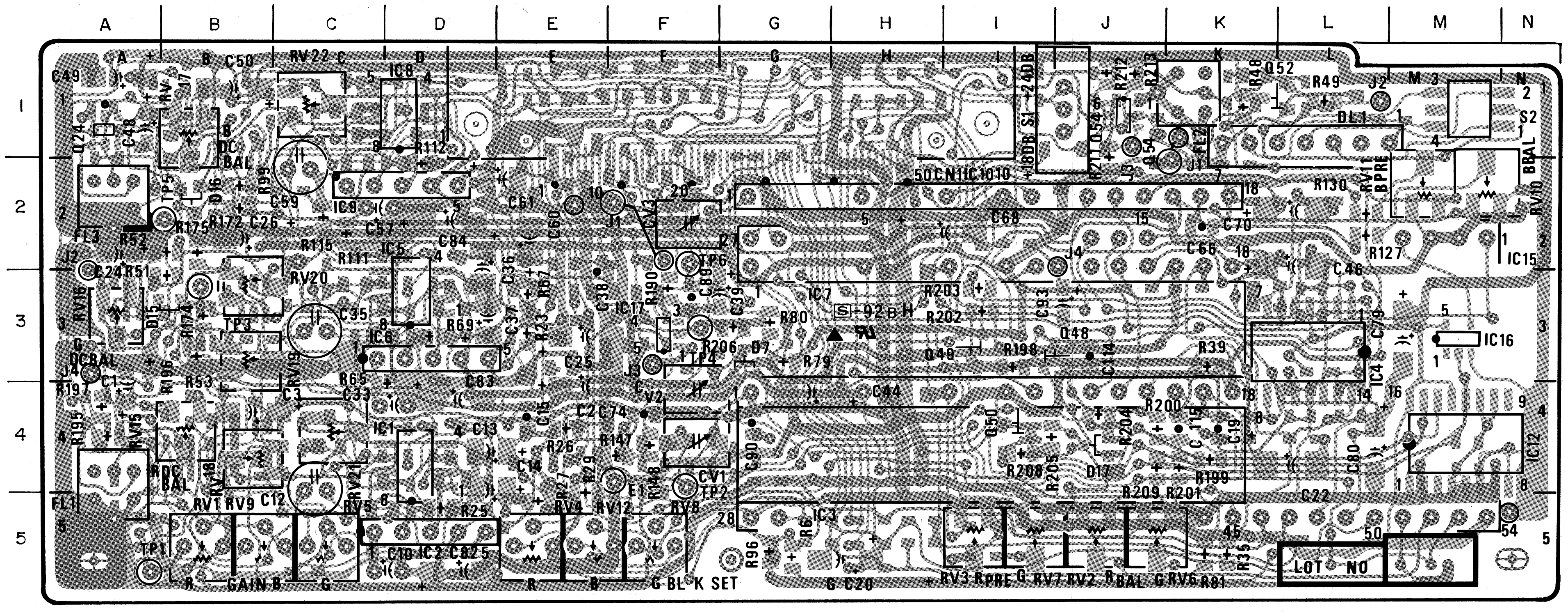
VA-104 -SOLDERING SIDE-

1-634-965-14
BVW-400A
BVW-400AP

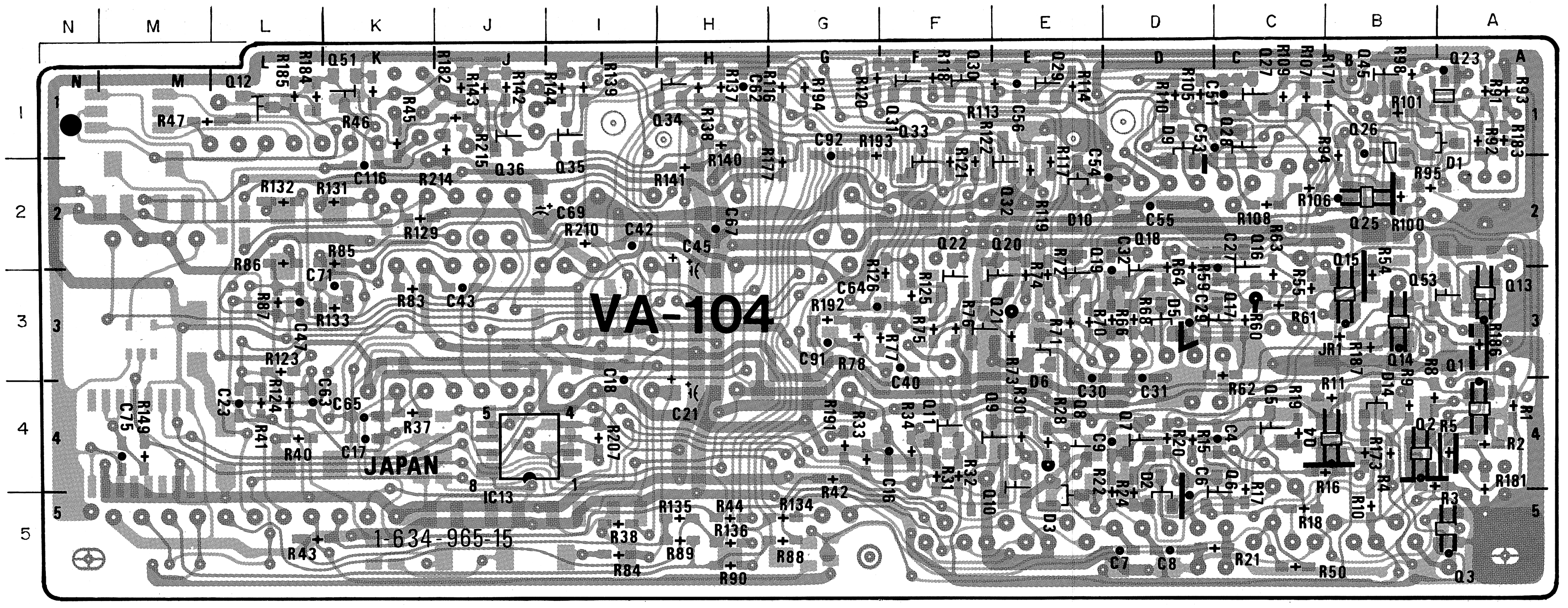
VA-104; VIDEO AMP, BLOCK SET, SHADING COMPE

S/N J ; 30216 and higher
UC ; 10158 and higher

CN1	I-2	Q15	B-3	TP2	F-4
		Q16	C-2	TP3	B-3
CV1	F-4	Q17	C-3	TP4	F-3
CV2	F-3	Q18	D-2	TP5	B-2
CV3	F-2	Q19	E-2	TP6	F-2
		Q20	E-2		
DL1	L-1	Q21	E-3		
		Q22	F-2		
D1	A-2	Q23	A-1		
D2	D-4	Q24	A-1		
D3	E-5	Q25	B-2		
D5	D-3	Q26	B-1		
D6	E-4	Q27	C-1		
D7	G-3	Q28	C-1		
D9	D-1	Q29	E-1		
D10	E-2	Q30	F-1		
D14	B-4	Q31	F-1		
D15	A-3	Q32	E-2		
D16	B-2	Q33	F-1		
D17	J-4	Q34	H-1		
		Q35	I-2		
E1	E-4	Q36	J-2		
		Q44	F-3		
FL1	A-5	Q45	B-1		
FL2	K-1	Q48	J-3		
FL3	A-2	Q49	H-3		
		Q50	I-4		
IC1	C-4	Q51	K-1		
IC2	D-5	Q52	K-1		
IC3	G-5	Q53	B-3		
IC4	L-3	Q54	J-1		
IC5	D-2				
IC6	C-3	RV1	B-5		
IC7	G-3	RV2	J-5		
IC8	D-1	RV3	I-5		
IC9	C-2	RV4	E-5		
IC10	I-2	RV5	C-5		
IC12	N-4	RV6	K-5		
IC13	J-5	RV7	I-5		
IC15	N-2	RV8	F-5		
IC16	M-3	RV9	B-5		
IC17	F-3	RV10	N-2		
		RV11	L-2		
Q1	A-3	RV12	F-5		
Q2	B-4	RV15	A-4		
Q3	A-5	RV16	A-3		
Q4	B-4	RV17	B-1		
Q5	C-4	RV18	B-4		
Q6	C-4	RV19	C-3		
Q7	D-4	RV20	C-3		
Q8	E-4	RV21	C-4		
Q9	F-4	RV22	C-1		
Q10	F-5				
Q11	F-4	S1	I-1		
Q12	L-1	S2	N-1		
Q13	A-3				
Q14	B-3	TP1	A-5		



VA-104 -COMPONENT SIDE-
1-634-965-15
BVW-400A
BVW-400AP

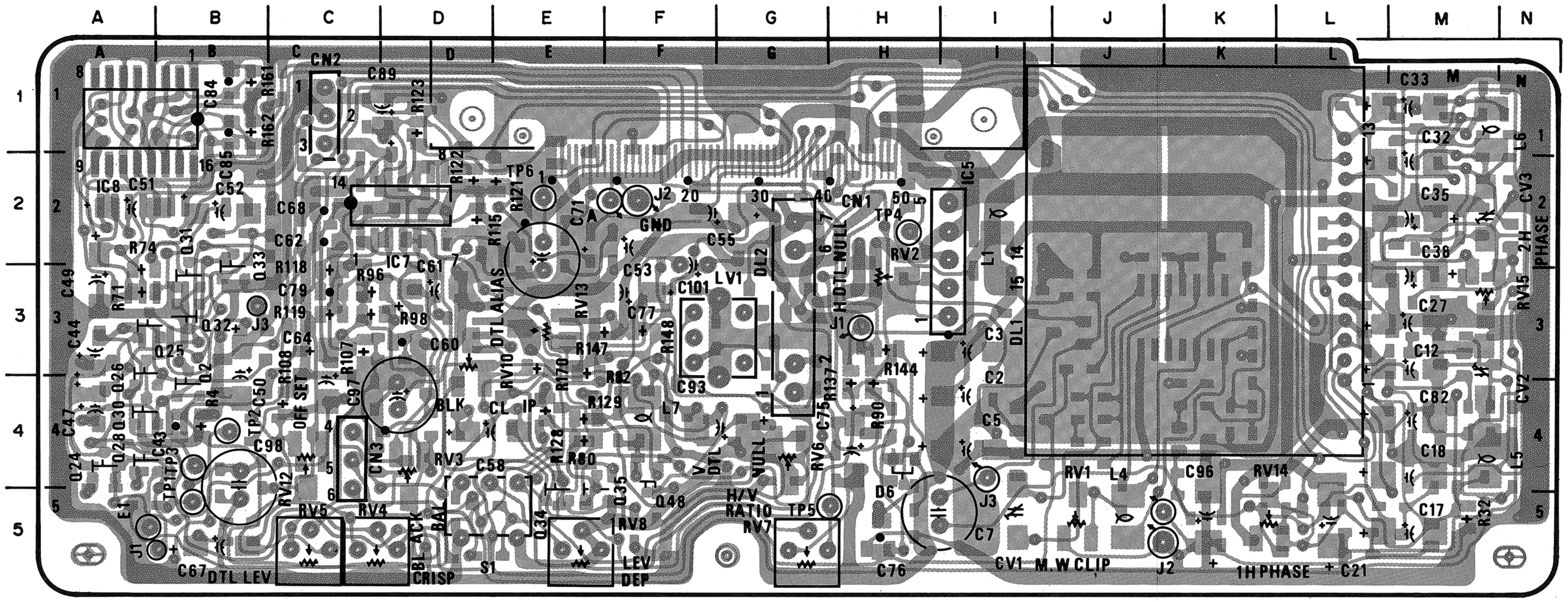


VA-104 -SOLDERING SIDE-
1-634-965-15
BVW-400A
BVW-400AP

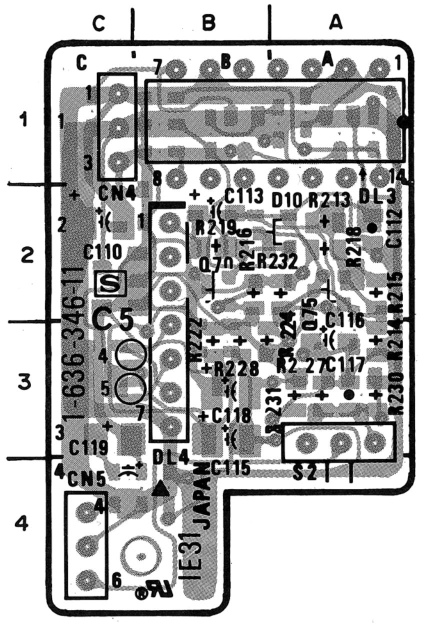
(Page 12-26 to 28 are missing.)

CN1	H-2
CV1	I-5
CV2	N-4
CV3	N-2
DL1	I-3
DL2	G-2
D1	G-4
D2	E-2
D3	E-1
D4	C-4
D5	C-4
D6	H-4
D7	G-2
D8	I-5
D9	G-3
E1	A-5
IC1	J-3
IC4	B-3
IC5	I-2
IC6	E-3
IC7	D-2
IC8	A-2
IC9	A-1
IC10	A-2
LV1	G-3
Q1	I-3
Q2	B-4
Q3	I-4
Q9	M-4
Q10	N-3
Q11	M-4
Q12	L-5
Q13	M-5
Q14	L-4
Q15	K-4
Q21	M-1
Q22	L-1
Q23	N-2
Q24	A-4
Q25	B-3
Q26	A-3
Q27	A-3
Q28	A-4
Q29	A-4
Q30	A-4
Q31	B-2
Q32	B-3
Q33	B-2
Q34	E-5
Q35	F-4
Q36	E-4
Q37	H-2
Q38	D-4
Q41	D-4
Q42	D-2
Q43	C-3
Q44	C-3
Q45	C-3
Q46	C-2
Q47	D-2
Q48	F-5
Q49	E-4
Q50	G-2
Q51	E-4
Q52	H-5
Q53	H-4
Q54	H-4
Q56	D-1
Q57	D-2
Q58	F-4
Q59	G-1
RV1	J-4
RV2	H-2
RV3	C-4
RV4	C-5
RV5	C-5
RV6	G-4
RV7	G-5
RV8	F-5
RV10	D-4
RV12	C-5
RV13	E-3
RV14	K-4
S1	D-5
TP1	B-5
TP2	B-4
TP3	B-4
TP4	H-2
TP5	G-5
TP6	E-2

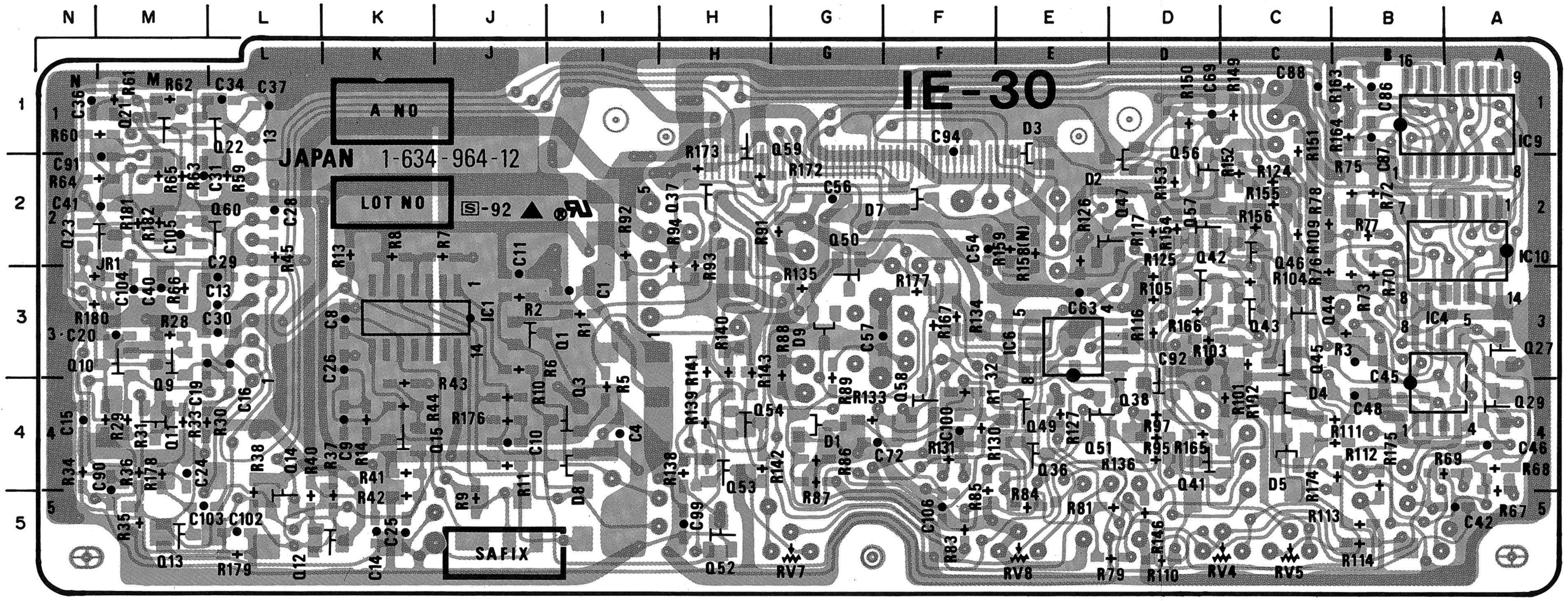
IE-30; IMAGE ENHANCE
IE-31; APERTURE


CN1
CN2
CN3
DTL LEV
CRISP
H/V RATIO
M.W CLIP
1H PHASE
2H PHASE

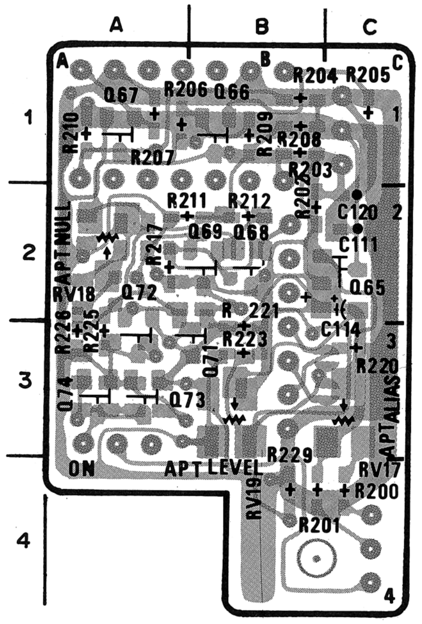
IE-30/30P -COMPONENT SIDE-
1-634-964-12
BVW-400A
BVW-400AP


1-636-346-11
JAPAN
IE31
CN4
CN5

IE-31 -COMPONENT SIDE-
1-636-346-11
BVW-400A
BVW-400AP


IE-30
JAPAN 1-634-964-12
A NO
LOT NO
S-92
SAFIX

IE-30/30P -SOLDERING SIDE-
1-634-964-12
BVW-400A
BVW-400AP


APT NULL
APT LEVEL
APT ALIAS
ON

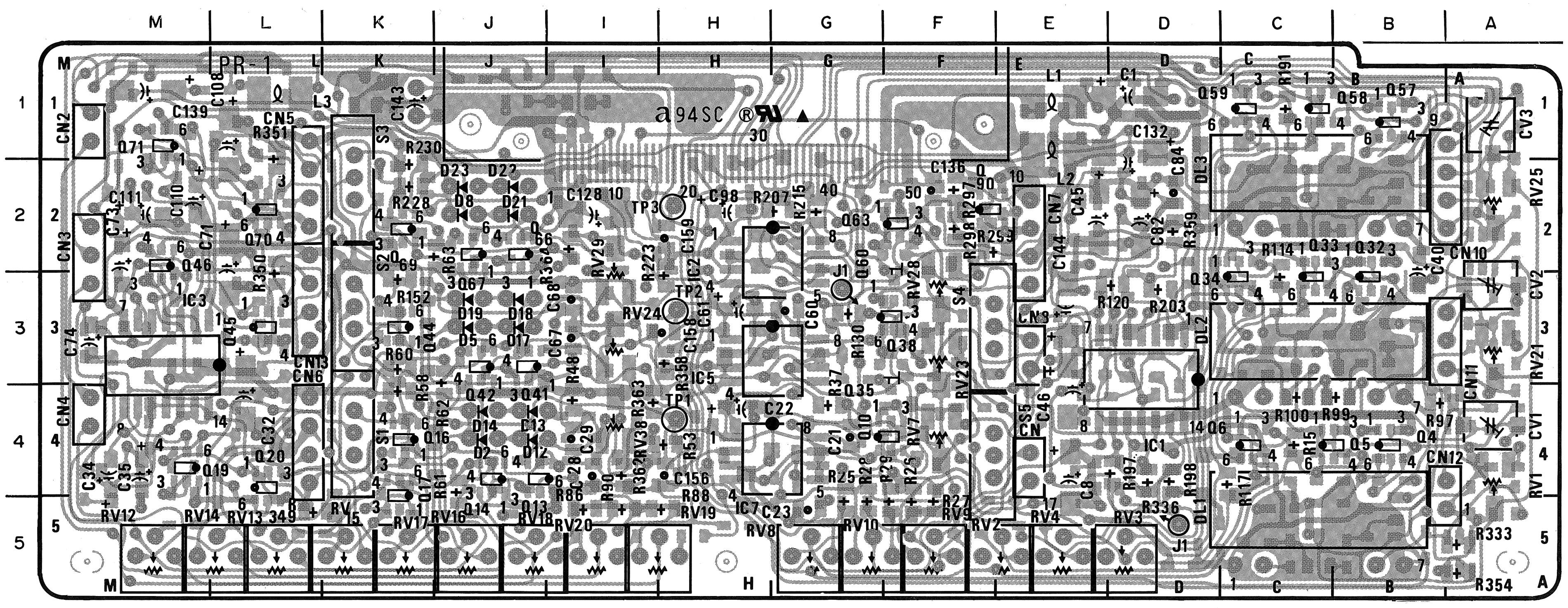
IE-31 -SOLDERING SIDE-
1-636-346-11
BVW-400A
BVW-400AP

(Page 12-33 and 34 are missing.)

PR-176/176U, PR-177, PR-178; GAMMA, MASKING, KNEE, SLOPE, W CLIP, DCC

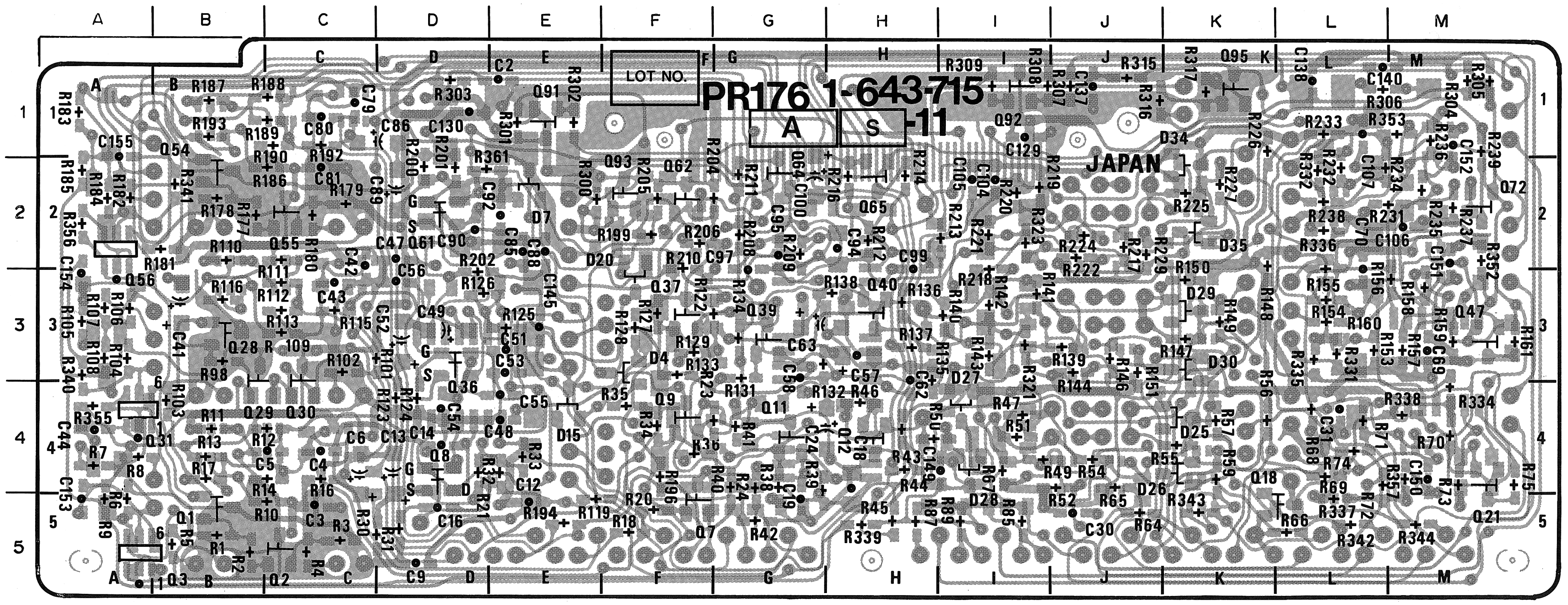
S/N J ; 30001 through 30215
UC ; 10001 through 10157

CN2	M-1
CN3	M-2
CN4	M-4
CN5	L-1
CN6	L-3
CN7	E-2
CN8	E-3
CN10	A-2
CN11	A-4
CN12	B-4
CN13	L-3
CV1	A-4
CV2	A-3
CV3	A-1
DL1	D-5
DL2	D-3
DL3	D-2
D2	J-4
D4	F-3
D5	J-3
D7	E-2
D8	J-2
D12	J-4
D14	J-4
D15	E-4
D17	J-3
D18	J-3
D19	J-3
D20	E-2
D21	J-2
D22	J-2
D23	J-2
D25	K-4
D26	J-4
D27	I-3
D28	I-5
D29	K-3
D30	K-3
D34	K-1
D35	K-2
RV1	A-4
RV2	F-5
RV3	D-5
RV4	E-5
RV7	F-4
RV8	H-5
RV9	F-5
RV10	G-5
RV12	M-5
RV13	L-5
RV14	M-5
RV15	K-5
RV16	K-5
RV17	K-5
RV18	J-5
RV19	H-5
RV20	I-5
RV21	A-3
RV23	F-4
RV24	I-3
RV25	A-2
RV28	F-3
RV29	I-3
RV38	I-4
S1	K-4
S2	K-2
S3	K-1
S4	F-3
S5	E-4
L1	E-1
L3	L-1
TP1	H-4
TP2	H-3
TP3	I-2
IC1	D-4
IC2	H-3
IC3	M-1
IC5	H-3
IC7	H-5
Q1	B-5
Q2	C-5
Q3	B-5
Q4	B-4
Q5	B-4
Q6	D-4
Q7	F-5
Q8	D-4
Q9	F-4
Q10	G-4
Q11	G-4
Q12	H-4
Q13	J-5
Q14	J-5
Q16	K-4
Q17	K-5
Q18	K-4
Q19	M-4
Q20	L-4
Q21	M-5
Q22	H-4
Q28	B-3
Q29	B-4
Q30	C-4
Q31	A-4
Q32	B-2
Q33	C-2
Q34	D-3
Q35	G-4
Q36	D-4
Q37	F-3
Q38	F-3
Q39	G-3
Q40	H-3
Q41	J-4
Q42	J-4
Q44	K-3
Q45	L-3
Q46	M-2
Q47	M-3
Q54	B-1
Q55	C-2
Q56	A-2
Q57	B-1
Q58	B-1
Q59	D-1
Q60	G-3
Q61	D-2
Q62	F-2
Q63	G-2
Q64	G-1
Q65	H-2
Q66	J-2
Q67	J-3
Q69	K-2
Q70	L-2
Q71	M-1
Q72	M-2
Q91	E-1
Q92	I-1
Q93	F-2
Q95	K-1



PR-176/176U -COMPONENT SIDE-

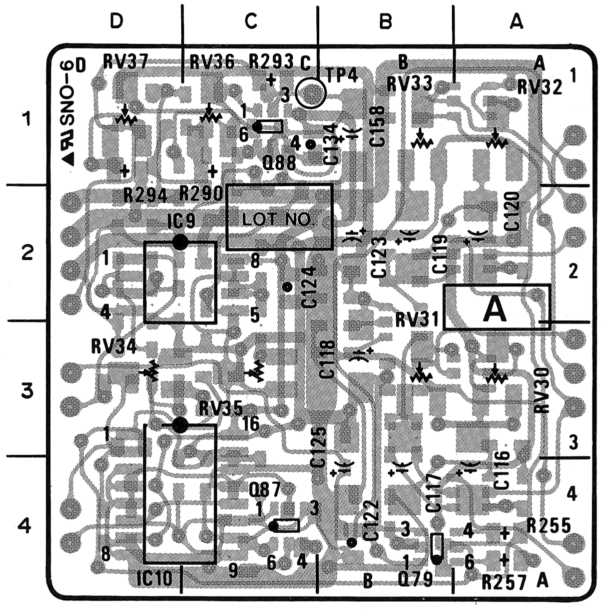
1-643-715-11
BVW-400A
BVW-400AP



PR-176/176U -SOLDERING SIDE-

1-643-715-11
BVW-400A
BVW-400AP

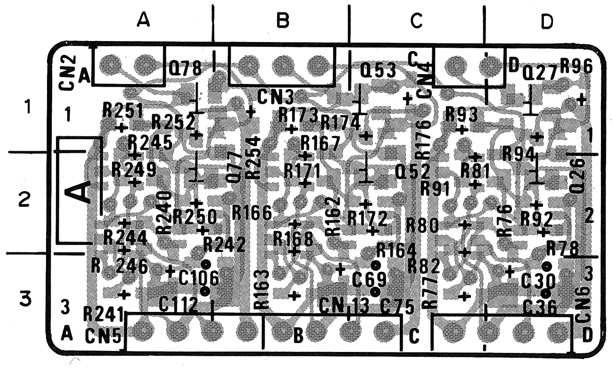
CN7	D-1
CN8	D-3
CN9	D-4
CN10	A-1
CN11	A-2
CN12	A-3
D9	D-3
D10	C-4
D11	B-1
D24	D-3
D31	C-1
D36	C-4
IC10	D-4
Q79	B-4
Q80	B-4
Q81	A-4
Q82	A-2
Q83	A-3
Q84	A-2
Q86	A-1
Q87	C-4
Q88	C-1
Q89	D-1
Q96	C-1
RV30	A-3
RV31	B-2
RV32	A-1
RV33	B-1
RV34	D-3
RV35	C-3
RV36	C-1
RV37	D-1


D
C
B
A
1
2
3
4
RV37
RV36
R293
TP4
RV33
RV32
Q88
C134
C158
R294
R290
LOT NO
IC9
C124
C123
C119
C120
RV31
RV34
C118
RV30
RV35
C125
C117
C116
Q87
C122
R255
IC10
Q79
R257

PR-177 -COMPONENT SIDE-

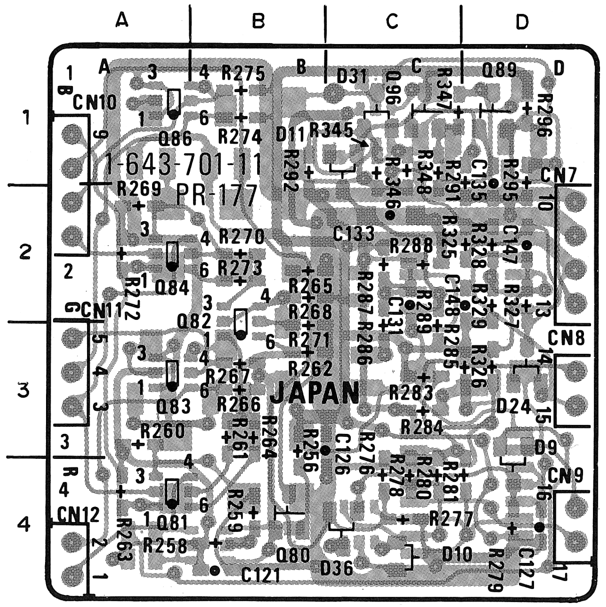
1-643-701-11
BVW-400A
BVW-400AP

CN2	A-1
CN3	B-1
CN5	A-3
CN6	D-3
CN13	B-3
Q22	D-3
Q23	D-3
Q24	D-1
Q25	D-1
Q26	D-2
Q27	D-1
Q48	B-3
Q49	C-3
Q50	B-1
Q51	C-1
Q52	C-2
Q53	C-1
Q73	A-3
Q74	A-3
Q75	A-1
Q76	A-1
Q77	B-2
Q78	A-1


A
B
C
D
1
2
3
CN2
Q78
CN3
Q53
CN4
Q27
R96
R251
R252
R245
R249
R173
R174
R167
R171
Q52
R93
R81
R94
Q26
R91
R240
R250
R166
R162
R172
R80
R76
R92
R244
R242
R168
R164
R78
R246
C106
R163
C69
R82
C30
R241
C112
CN13
C75
C36
CN5
CN6

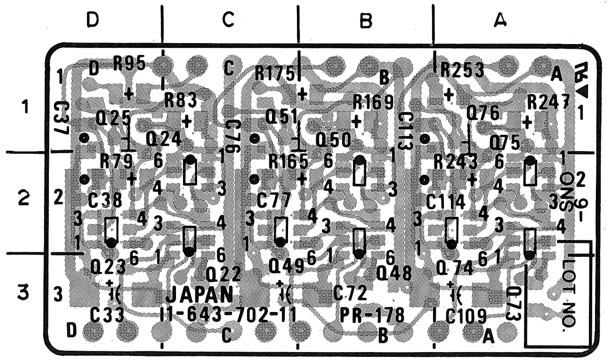
PR-178 -COMPONENT SIDE-

1-643-702-11
BVW-400A
BVW-400AP


A
B
C
D
1
2
3
4
CN10
R275
D31
Q96
R347
Q89
R296
Q86
R274
D11
R345
R292
R269
1-643-701-11
PR-177
CN7
R270
R273
Q84
C133
R288
Q82
R265
R268
R271
R262
CN11
Q83
R267
R266
JAPAN
R283
CN8
D24
R260
R264
R284
D9
R256
C126
R280
CN9
CN12
Q81
R259
R277
R258
C121
Q80
D36
D10
R279
C127

PR-177 -SOLDERING SIDE-

1-643-702-11
BVW-400A
BVW-400AP


D
C
B
A
1
2
3
R95
R175
R253
C37
R83
Q25
Q24
C76
Q51
R169
C113
Q76
R247
Q50
Q75
R79
R165
R243
C38
C77
C114
Q23
Q22
Q49
Q48
Q74
C33
JAPAN
1-643-702-11
C72
PR-178
C109
Q73
LOT NO

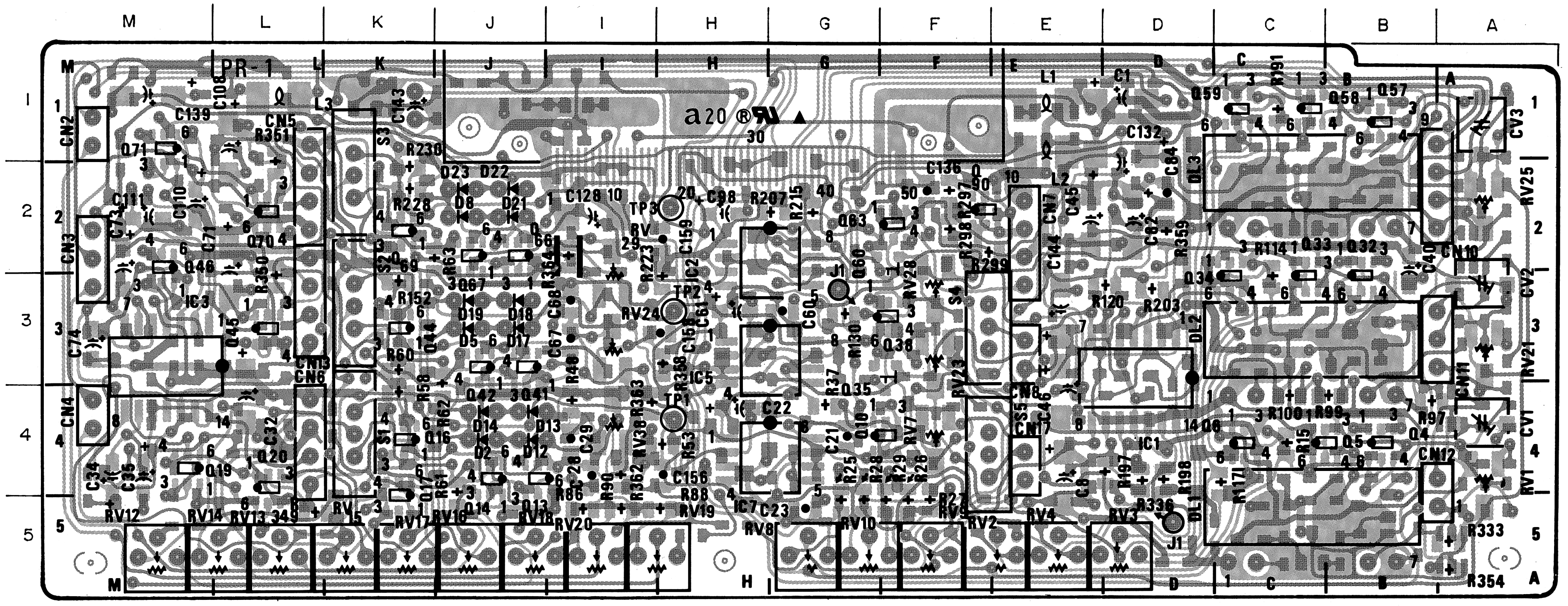
PR-178 -SOLDERING SIDE-

1-643-702-11
BVW-400A
BVW-400AP

PR-176/176U, PR-177/BP-020, PR-178/BP-021; GAMMA, MASKING, KNEE, SLOPE, W CLIP, DCC

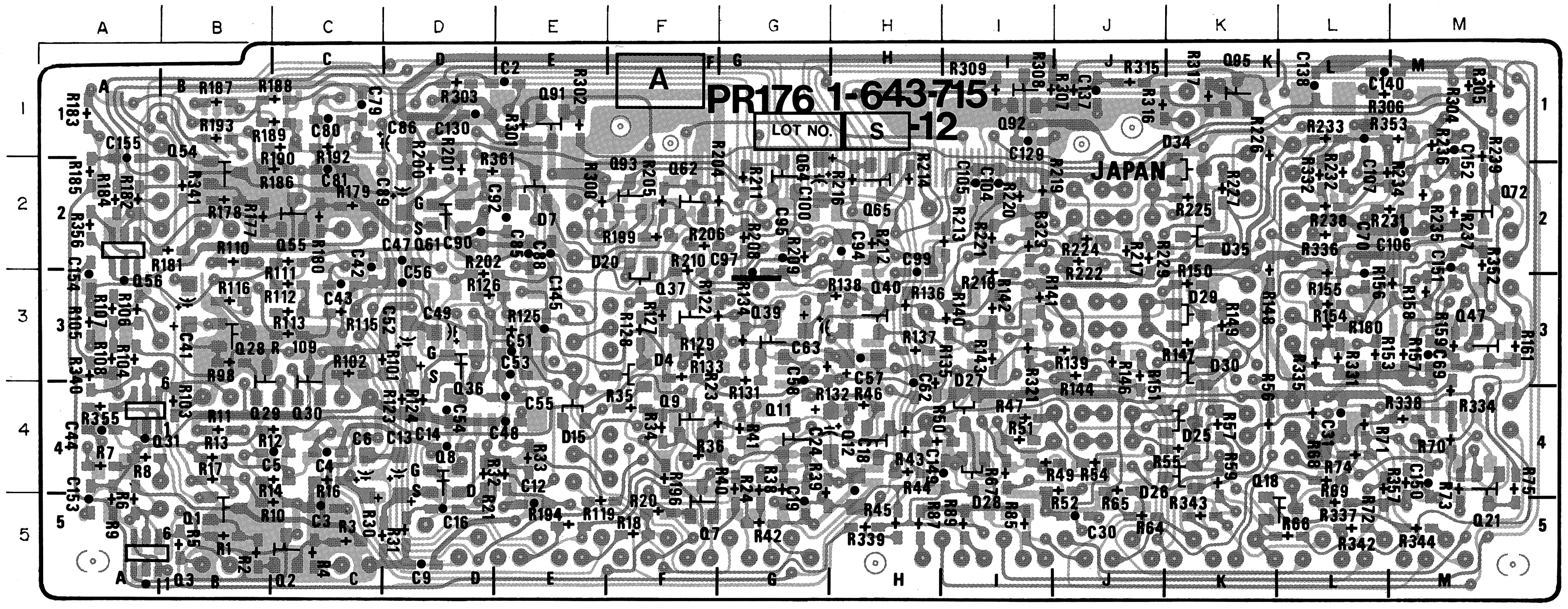
S/N J ; 30216 and higher
UC ; 10158 and higher

CN2	M-1	RV19	H-5	Q37	F-3
CN3	M-2	RV20	I-5	Q38	F-3
CN4	M-4	RV21	A-3	Q39	G-3
CN5	L-1	RV23	F-4	Q40	H-3
CN6	L-3	RV24	I-3	Q41	J-4
CN7	E-2	RV25	A-2	Q42	J-4
CN8	E-3	RV28	F-3	Q44	K-3
CN10	A-2	RV29	I-3	Q45	L-3
CN11	A-4	RV38	I-4	Q46	M-2
CN12	B-4			Q47	M-3
CN13	L-3	S1	K-4	Q54	B-1
		S2	K-2	Q55	C-2
CV1	A-4	S3	K-1	Q56	A-2
CV2	A-3	S4	F-3	Q57	B-1
CV3	A-1	S5	E-4	Q58	B-1
				Q59	D-1
DL1	D-5	L1	E-1	Q60	G-3
DL2	D-3	L3	L-1	Q61	D-2
DL3	D-2			Q62	F-2
		TP1	H-4	Q63	G-2
D2	J-4	TP2	H-3	Q64	G-1
D4	F-3	TP3	I-2	Q65	H-2
D5	J-3			Q66	J-2
D7	E-2	IC1	D-4	Q67	J-3
D8	J-2	IC2	H-3	Q69	K-2
D12	J-4	IC3	M-1	Q70	L-2
D14	J-4	IC5	H-3	Q71	M-1
D15	E-4	IC7	H-5	Q72	M-2
D17	J-3			Q91	E-1
D18	J-3	Q1	B-5	Q92	I-1
D19	J-3	Q2	C-5	Q93	F-2
D20	E-2	Q3	B-5	Q95	K-1
D21	J-2	Q4	B-4		
D22	J-2	Q5	B-4		
D23	J-2	Q6	D-4		
D25	K-4	Q7	F-5		
D26	J-4	Q8	D-4		
D27	I-3	Q9	F-4		
D28	I-5	Q10	G-4		
D29	K-3	Q11	G-4		
D30	K-3	Q12	H-4		
D34	K-1	Q13	J-5		
D35	K-2	Q14	J-5		
		Q16	K-4		
RV1	A-4	Q17	K-5		
RV2	F-5	Q18	K-4		
RV3	D-5	Q19	M-4		
RV4	E-5	Q20	L-4		
RV7	F-4	Q21	M-5		
RV8	H-5	Q22	H-4		
RV9	F-5	Q28	B-3		
RV10	G-5	Q29	B-4		
RV12	M-5	Q30	C-4		
RV13	L-5	Q31	A-4		
RV14	M-5	Q32	B-2		
RV15	K-5	Q33	C-2		
RV16	K-5	Q34	D-3		
RV17	K-5	Q35	G-4		
RV18	J-5	Q36	D-4		


M
L
K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
PR-1
a20
CN2
CN3
CN4
CN5
CN6
CN7
CN8
CN10
CN11
CN12
CN13
CV1
CV2
CV3
RV25
RV21
DL1
DL2
DL3
IC1
IC3
IC5
IC7
TP1
TP2
TP3
J1
R333
R354

PR-176/176U -COMPONENT SIDE-

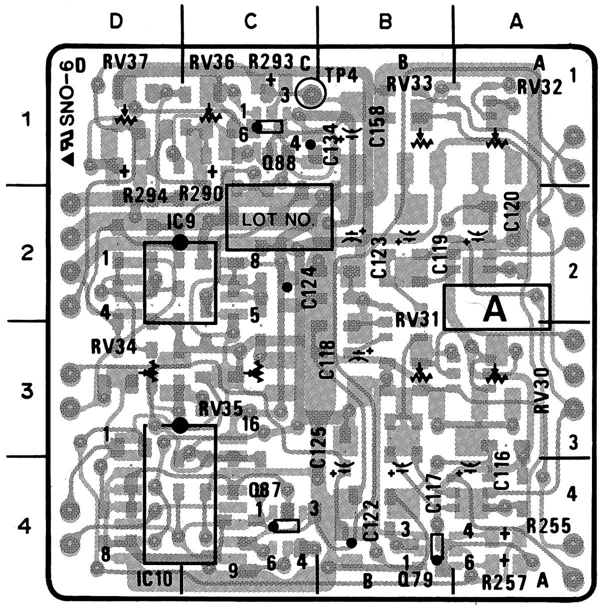
1-643-715-12
BVW-400A
BVW-400AP


A
B
C
D
E
F
G
H
I
J
K
L
M
1
2
3
4
5
PR176 1-643-715
-12
LOT NO.
S
JAPAN

PR-176/176U -SOLDERING SIDE-

1-643-715-12
BVW-400A
BVW-400AP

CN7	D-1
CN8	D-3
CN9	D-4
CN10	A-1
CN11	A-2
CN12	A-3
D9	D-3
D10	C-4
D11	B-1
D24	D-3
D31	C-1
D36	C-4
IC10	D-4
Q79	B-4
Q80	B-4
Q81	A-4
Q82	A-2
Q83	A-3
Q84	A-2
Q86	A-1
Q87	C-4
Q88	C-1
Q89	D-1
Q96	C-1
RV30	A-3
RV31	B-2
RV32	A-1
RV33	B-1
RV34	D-3
RV35	C-3
RV36	C-1
RV37	D-1



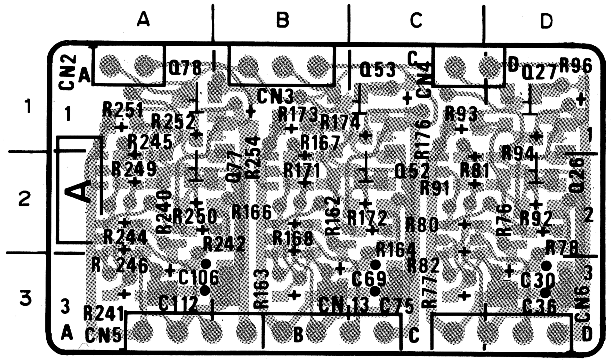
PR-177 -COMPONENT SIDE-

1-643-701-11

BP-020

BVW-400A
BVW-400AP

CN2	A-1
CN3	B-1
CN5	A-3
CN6	D-3
CN13	B-3
Q22	D-3
Q23	D-3
Q24	D-1
Q25	D-1
Q26	D-2
Q27	D-1
Q48	B-3
Q49	C-3
Q50	B-1
Q51	C-1
Q52	C-2
Q53	C-1
Q73	A-3
Q74	A-3
Q75	A-1
Q76	A-1
Q77	B-2
Q78	A-1

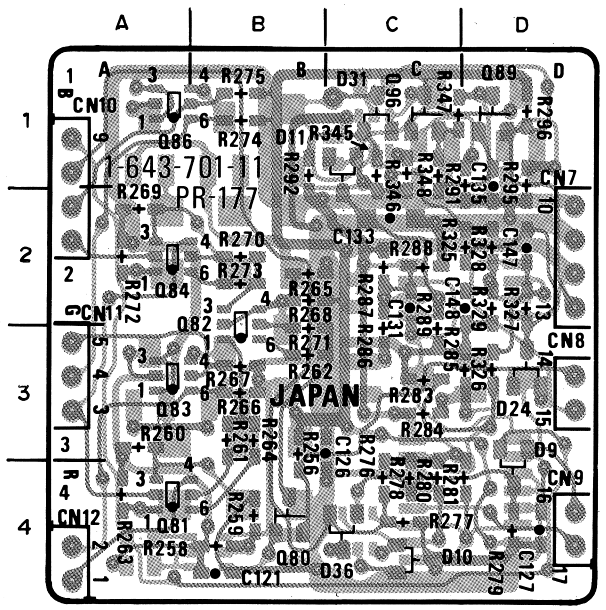


PR-178 -COMPONENT SIDE-

1-643-702-11

BP-021

BVW-400A
BVW-400AP

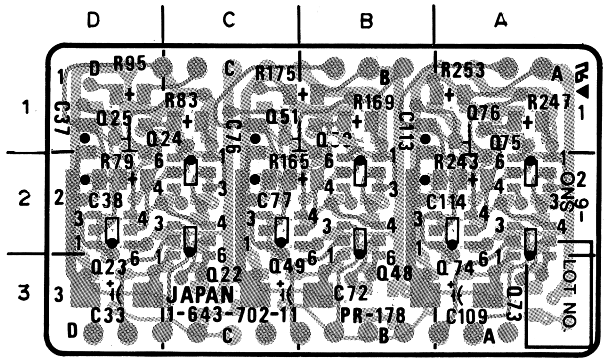


PR-177 -SOLDERING SIDE-

1-643-701-11

BP-020

BVW-400A
BVW-400AP



PR-178 -SOLDERING SIDE-

1-643-702-11

BP-021

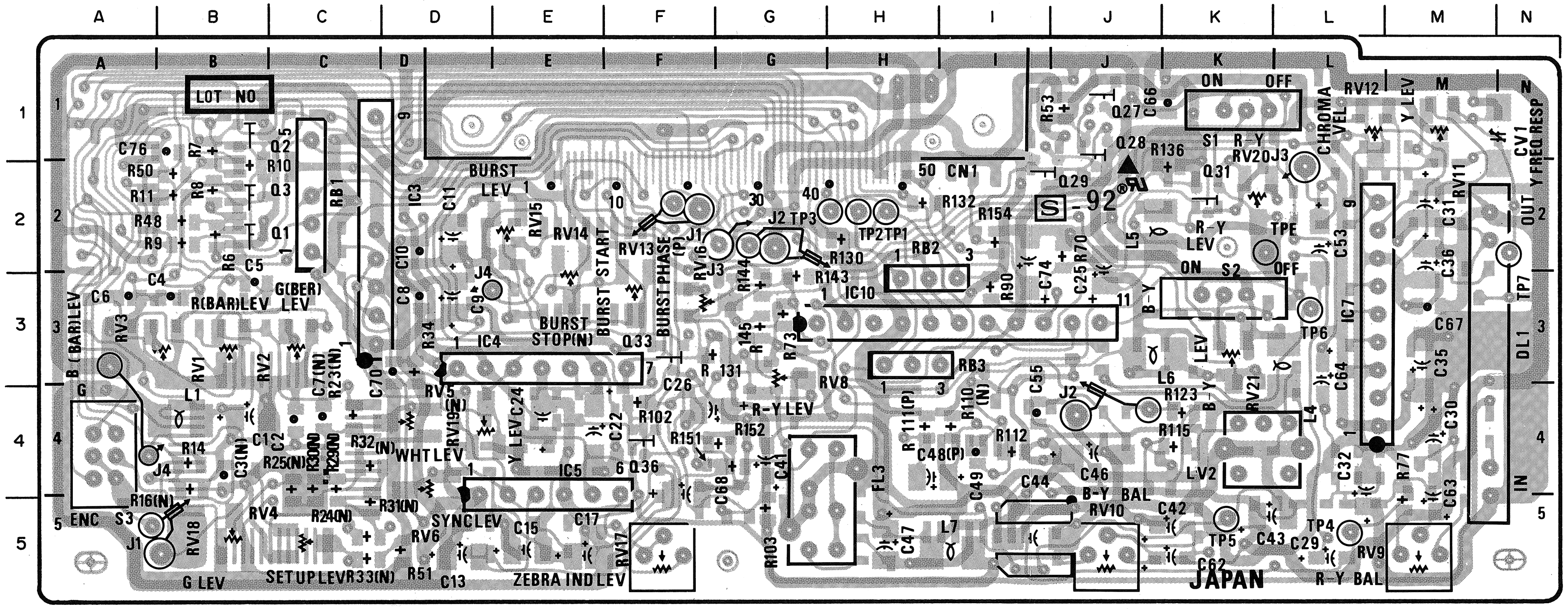
BVW-400A
BVW-400AP

(Page 12-38 and 39 are missing.)

EN-79/79U; Y/R-Y/B-Y SIGNAL GEN, ENCODER, CB GEN

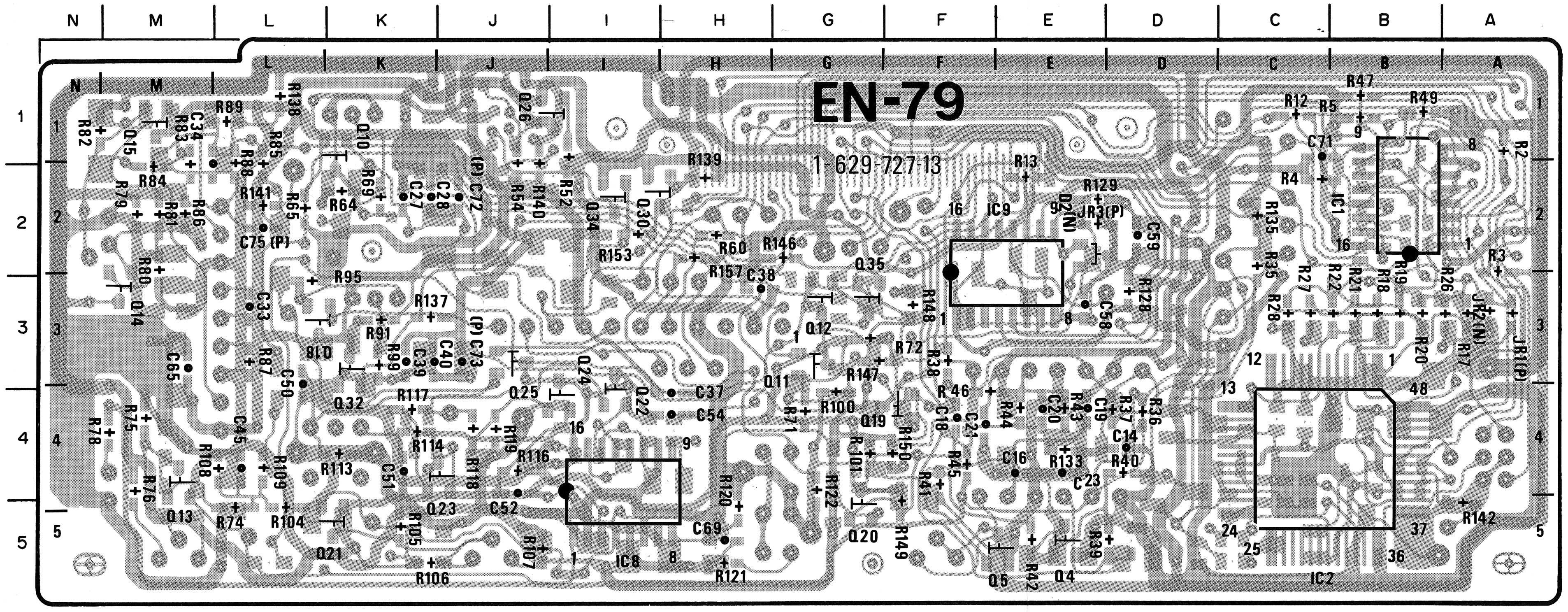
CN1	I-2
CV1	N-1
DL1	N-3
D2	E-2
E1	L-2
FL3	H-4
IC1	B-2
IC2	C-5
IC3	D-2
IC4	D-3
IC5	E-4
IC7	L-3
IC8	I-5
IC9	E-2
IC10	H-3
LV2	K-4
Q1	C-2
Q2	C-1
Q3	C-2
Q4	E-5
Q5	E-5
Q10	K-1
Q11	G-3
Q12	G-3
Q13	M-4
Q14	M-3
Q15	M-1
Q18	L-3
Q19	F-4
Q20	G-5
Q21	K-4
Q22	I-4
Q23	J-5
Q24	I-3
Q25	J-4
Q26	J-1
Q27	J-1
Q28	J-1
Q29	J-2
Q30	I-2
Q31	K-2
Q32	K-4
Q33	F-3
Q34	I-2
Q35	G-2
Q36	F-4

RB1	C-2
RB2	H-2
RB3	I-3
RV1	B-3
RV2	B-3
RV3	A-3
RV4	B-5
RV5	D-4
RV6	D-5
RV8	H-3
RV9	L-5
RV10	J-5
RV11	M-2
RV12	L-1
RV13	F-2
RV14	E-2
RV15	E-2
RV17	F-5
RV18	B-5
RV19	D-4
RV20	K-1
RV21	K-4
S1	K-1
S2	L-3
S3	A-5
TP1	H-2
TP2	H-2
TP3	G-2
TP4	L-5
TP5	K-5
TP6	L-3
TP7	N-3


A B C D E F G H I J K L M N
1 2 3 4 5
LOT NO
BURST LEV
BURST STOP(N)
BURST START
BURST PHASE
50 CN1
R(BAR)LEV
G(BER) LEV
B (BAR) LEV
WHT LEV
Y LEV
R-Y LEV
SYNC LEV
SETUP LEV
ZEBRA IND LEV
G LEV
ENC
B-Y BAL
R-Y BAL
R-Y LEV
B-Y LEV
CHROMA VEL
Y LEV
Y FREQ RESP
OUT
IN
ON OFF
JAPAN

EN-79/79U/79P -COMPONENT SIDE-

1-629-727-14
BVW-400A
BVW-400AP


N M L K J I H G F E D C B A
1 2 3 4 5
EN-79
1-629-727-13

EN-79/79U/79P -SOLDERING SIDE-

1-629-727-14
BVW-400A
BVW-400AP

(Page 12-44 to 46 are missing.)

SG-152 BOARD

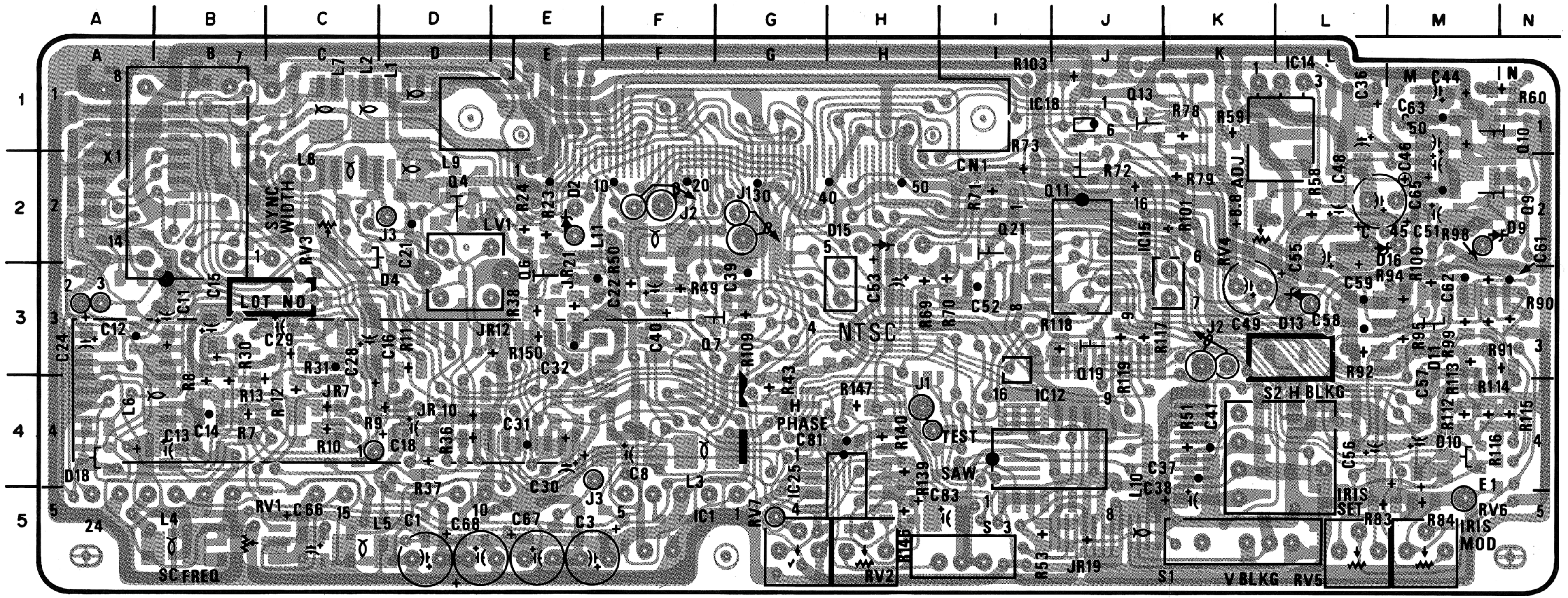
SERIAL NO.30001-30215(J)
NO.10001-10157(UC)

SG-152B BOARD

SERIAL NO.30216 and higher(J)
NO.10158 and higher(UC)

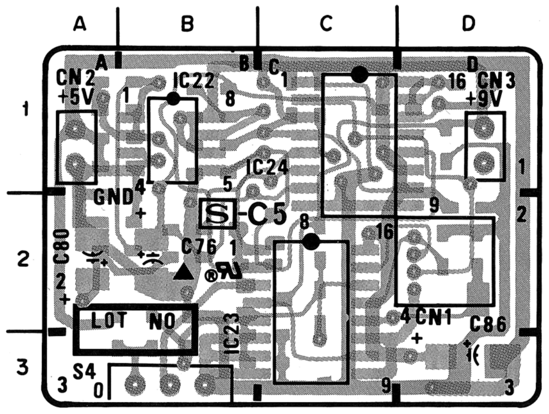
CN1	I-2
D1	C-2
D2	E-2
D3	A-3
D4	D-3
D5	K-3
D6	I-2
D9	N-2
D10	M-4
D11	M-3
D12	J-3
D13	L-3
D15	H-2
D16	M-2
D17	K-2
D18	A-4
E1	M-4
IC1	F-5
IC2	B-5
IC3	A-4
IC4	B-2
IC5	C-3
IC6	H-4
IC7	F-4
IC8	F-2
IC9	D-1
IC10	L-4
IC11	J-5
IC12	I-4
IC13	N-1
IC14	L-1
IC15	J-2
IC17	M-3
IC18	I-1
IC19	I-3
IC20	K-1
IC25	G-4
LV1	D-2
Q1	C-2
Q2	C-1
Q3	D-2
Q4	D-2
Q5	F-3
Q6	E-3
Q7	F-3
Q8	K-1
Q9	N-2
Q10	N-1
Q11	J-2
Q12	L-1
Q13	J-1
Q16	K-2
Q19	J-3
Q20	H-3
Q21	I-2
Q22	E-5
RV1	C-5
RV2	H-5
RV3	C-2
RV4	K-4
RV5	L-5
RV6	M-5
RV7	G-5
S1	K-5
S2	K-4
S3	I-5
X1	A-2

SG-152; SYNC GEN
SG-157; SC PHASE


SG-152
NTSC
LOT NO
SYNC WIDTH
H PHASE
SAW
TEST
SC FREQ
IRIS SET
IRIS MOD
V BLKG
S2 H BLKG
+8.8 ADJ

SG-152 -COMPONENT SIDE-

1-629-762-25
BVW-400A
BVW-400AP

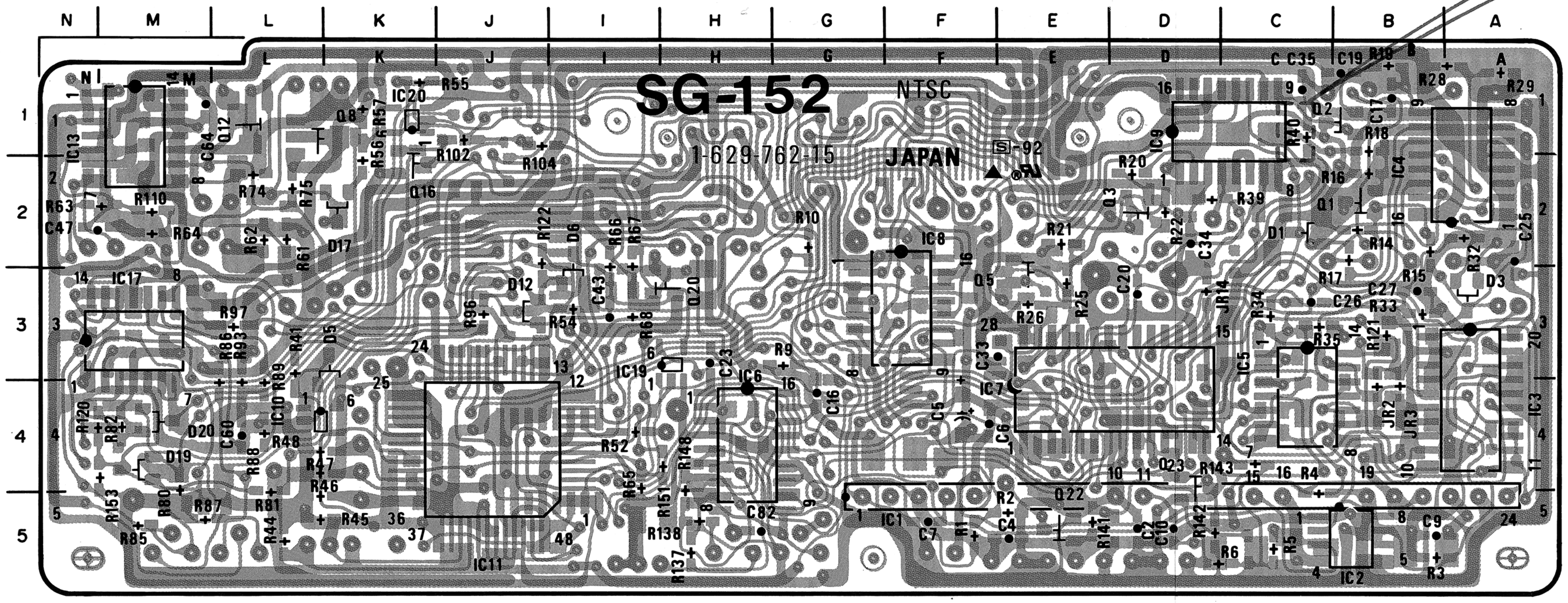

CN2 +5V
CN3 +9V
GND
LOT NO
S4
CN1

SG-157/157P -COMPONENT SIDE-

1-629-726-13
BVW-400A
BVW-400AP

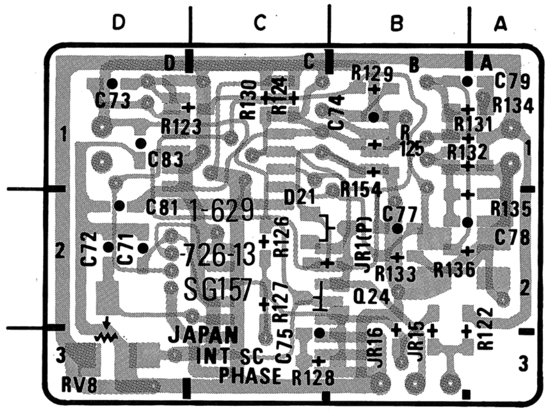
CHANGE INFORMATION FOR SG-152 BOARD IN THE BVW-400A

R40 1800 → 1000 SERIAL NO.30001-30215(J)
NO.10001-10157(UC)


SG-152
NTSC
1-629-762-15
JAPAN
S-92

SG-152 -SOLDERING SIDE-

1-629-762-25
BVW-400A
BVW-400AP


1-629-726-13
SG157
JAPAN
INT SC PHASE
RV8

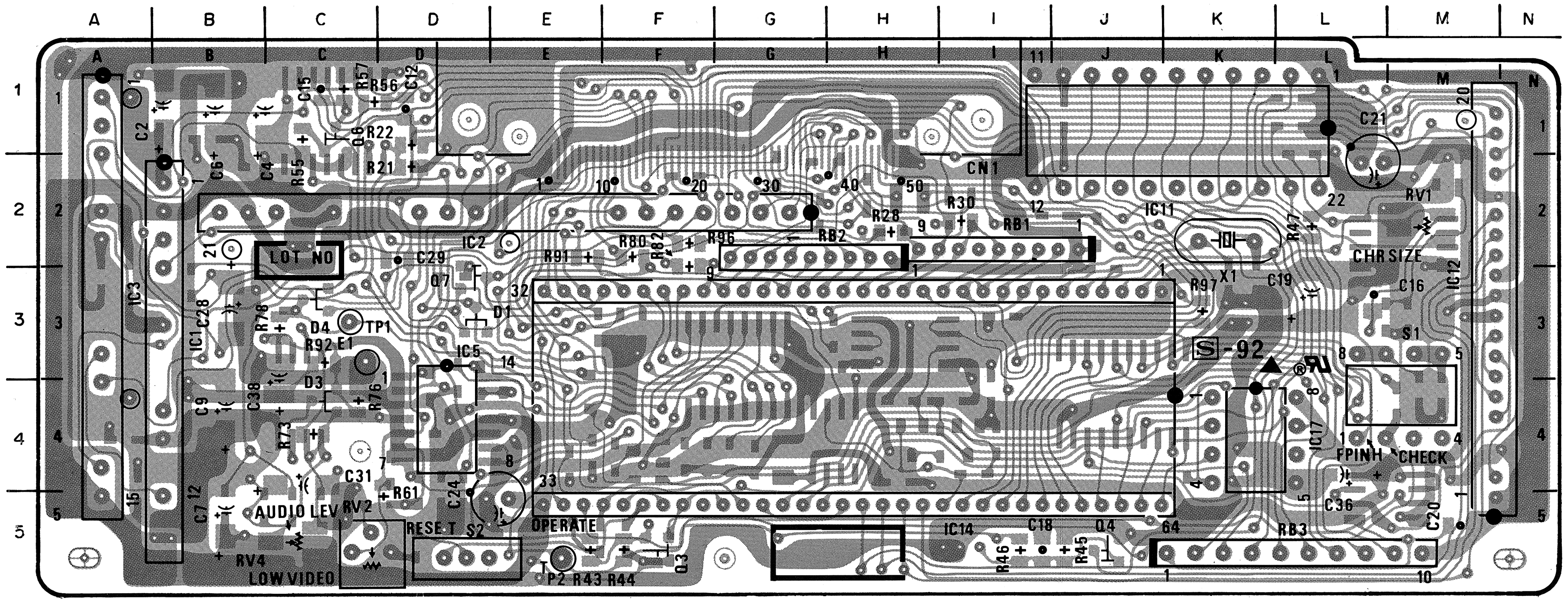
SG-157/157P -SOLDERING SIDE-

1-629-726-13
BVW-400A
BVW-400AP

(Page 12-51 to 53 are missing.)

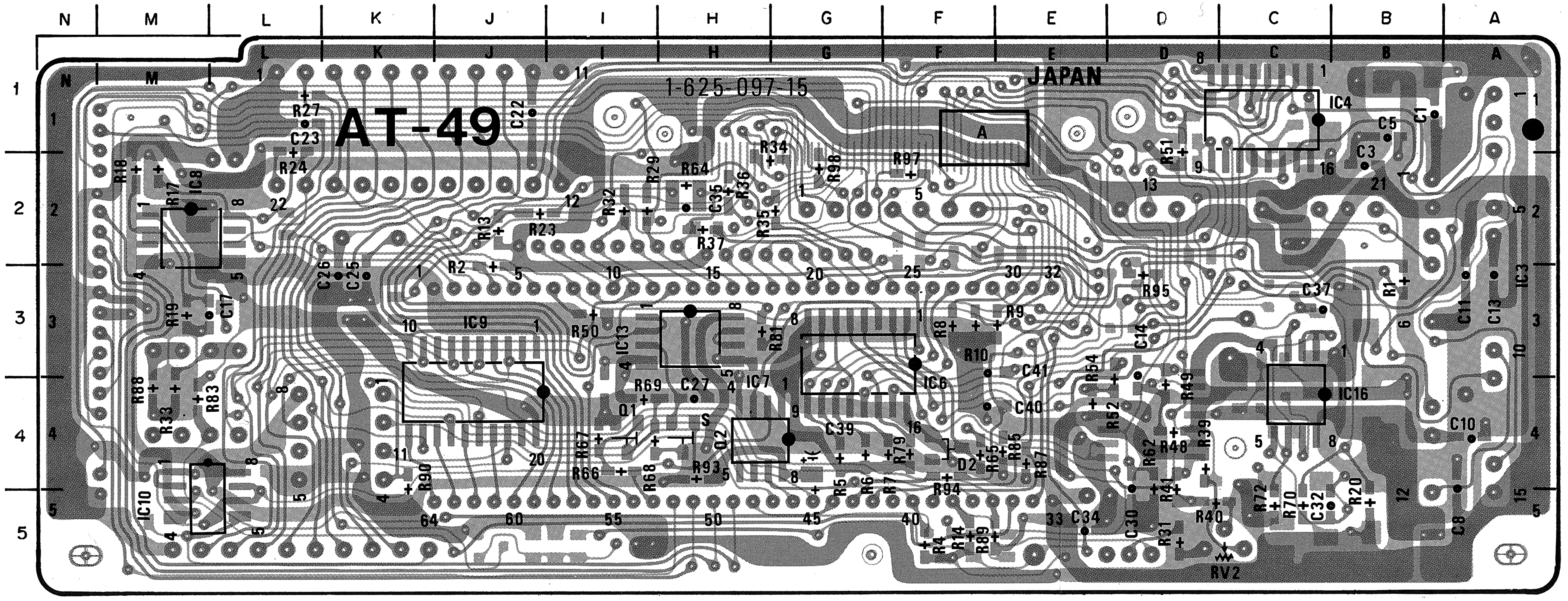
AT-49B; AUTO W/B, CHARA GEN, SYS-CON.

CN1	I-2
D1	E-3
D2	F-4
D3	C-4
D4	C-3
D2	B-3
IC1	B-3
IC2	D-2
IC3	A-3
IC4	B-1
IC5	D-3
IC6	F-3
IC7	H-4
IC8	M-2
IC9	J-3
IC10	M-5
IC11	J-2
IC12	M-3
IC13	I-3
IC14	H-5
IC16	B-4
IC17	L-4
Q1	I-4
Q2	H-4
Q3	F-5
Q4	J-5
Q6	C-1
Q7	D-3
RB1	I-2
RB2	H-2
RB3	L-5
RV1	M-3
RV2	C-5
RV4	B-5
S1	M-3
S2	D-5
TP1	C-3
TP2	E-5
X1	K-3


A
B
C
D
E
F
G
H
I
J
K
L
M
N
1
2
3
4
5
CN1
IC1
IC2
IC3
IC5
IC11
IC12
IC14
IC17
LOT NO
TP1
AUDIO LEV
RV2
RV4
LOW VIDEO
RESET S2
OPERATE
CHR SIZE
RV1
S1
FPINH
CHECK
X1
RB1
RB2
RB3
S-92

AT-49B -COMPONENT SIDE-

1-625-097-15
BVW-400A
BVW-400AP

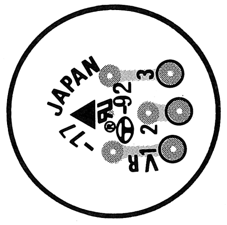

N
M
L
K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
AT-49
1-625-097-15
JAPAN
IC4
IC6
IC7
IC8
IC9
IC10
IC13
IC16
RV2

AT-49B -SOLDERING SIDE-

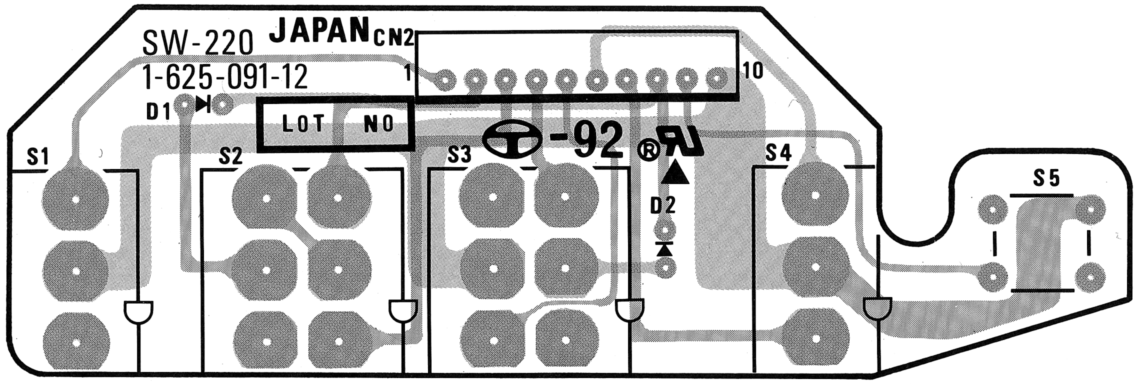
1-625-097-15
BVW-400A
BVW-400AP

(Page 12-56 to 59 are missing.)

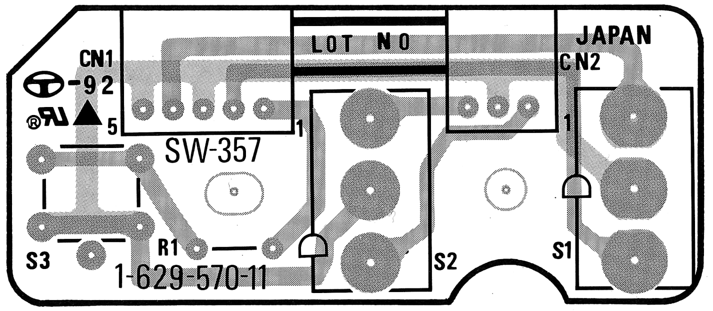
SW-220; SWITCH BOARD
SW-357B; SWITCH BOARD
VR-77; VOLUME CONTROL


JAPAN
VR-77
-92
1
2
3

VR-77 -COMPONENT SIDE-
1-625-554-13
BVW-400A
BVW-400AP


SW-220
1-625-091-12
JAPAN
CN2
1
10
D1
LOT NO
-92
S1
S2
S3
S4
S5
D2

SW-220 -COMPONENT SIDE-
1-625-091-12
BVW-400A
BVW-400AP


CN1
-92
5
LOT NO
JAPAN
CN2
1
1
SW-357
S3
R1
1-629-570-11
S2
S1

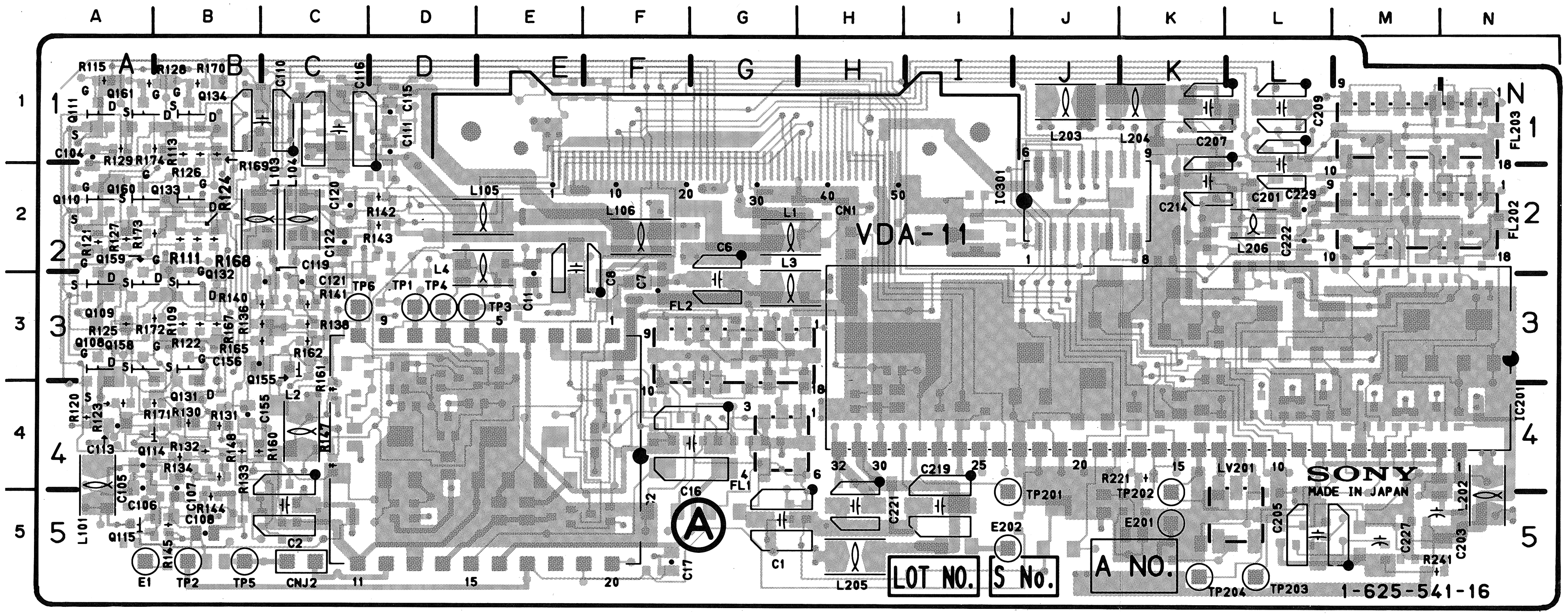
SW-357B -COMPONENT SIDE-
1-629-570-11
BVW-400A
BVW-400AP

(Page 12-62 to 65 are missing.)

VDA-11; CTDM AND C-MODULATOR

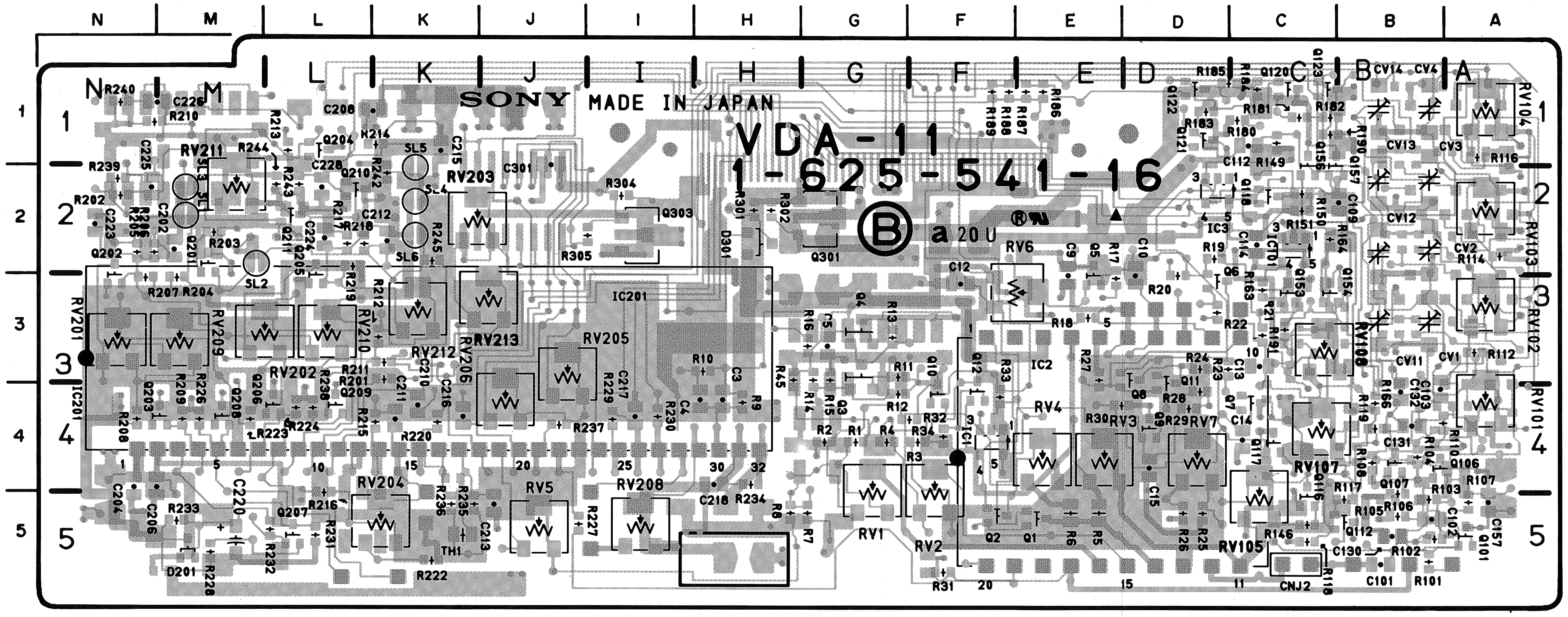
S/N J ; 30001 through 30935
UC ; 10001 through 11053

CN1	H-2
CN2	C-5
CNJ2	C-5
CV1	A-3
CV2	A-2
CV3	B-1
CV4	B-1
CV11	B-3
CV12	B-2
CV13	B-1
CV14	B-1
D201	M-5
D301	H-2
E1	A-5
E201	K-5
E202	I-5
FL1	G-4
FL2	F-3
FL202	N-2
FL203	N-1
IC1	F-4
IC2	E-3
IC3	D-2
IC101	C-2
IC201	N-4
IC301	I-2
LV201	L-4
Q1	E-5
Q2	F-5
Q3	G-4
Q4	G-3
Q5	E-2
Q6	C-2
Q7	C-4
Q8	D-4
Q9	D-4
Q10	F-3
Q11	D-3
Q12	F-3
Q101	A-5
Q106	A-4
Q107	B-4
Q108	A-3
Q109	A-3
Q110	A-2
Q111	A-1
Q112	B-5
Q114	A-4
Q115	A-5
Q116	C-4
Q117	C-4
Q118	C-2
Q120	C-1
Q121	D-1
Q122	D-1
Q123	C-1
Q131	B-4
Q132	B-3
Q133	B-2
Q134	B-1
Q153	C-3
Q154	B-3
Q155	C-3
Q156	C-1
Q157	B-2
Q158	A-3
Q159	A-2
Q160	A-2
Q161	A-1
Q201	M-2
Q202	N-2
Q203	N-4
Q204	L-1
Q205	L-2
Q206	M-4
Q207	L-5
Q208	M-4
Q209	L-4
Q210	L-2
Q211	L-2
Q301	G-2
Q303	I-2
RV1	G-5
RV2	F-5
RV3	D-4
RV4	E-4
RV5	J-4
RV6	F-2
RV7	D-4
RV101	A-4
RV102	A-3
RV103	A-2
RV104	A-1
RV105	C-5
RV107	C-4
RV108	B-3
RV201	N-3
RV202	L-3
RV203	K-2
RV204	K-4
RV205	I-3
RV206	K-3
RV208	I-4
RV209	M-3
RV210	L-3
RV211	M-1
RV212	K-3
RV213	J-3
TH1	K-5
TP1	D-3
TP2	B-5
TP3	E-3
TP4	D-3
TP5	B-5
TP6	C-3
TP201	J-5
TP202	K-5
TP203	L-5
TP204	K-5


A B C D E F G H I J K L M N
1 2 3 4 5
VDA-11
SONY MADE IN JAPAN
Ⓐ
LOT NO.
S No.
A NO.
1-625-541-16

VDA-11/11P -COMPONENT SIDE-

1-625-541-16
BVW-400A
BVW-400AP


N M L K J I H G F E D C B A
1 2 3 4 5
SONY MADE IN JAPAN
VDA-11
1-625-541-16
Ⓑ a 20 U

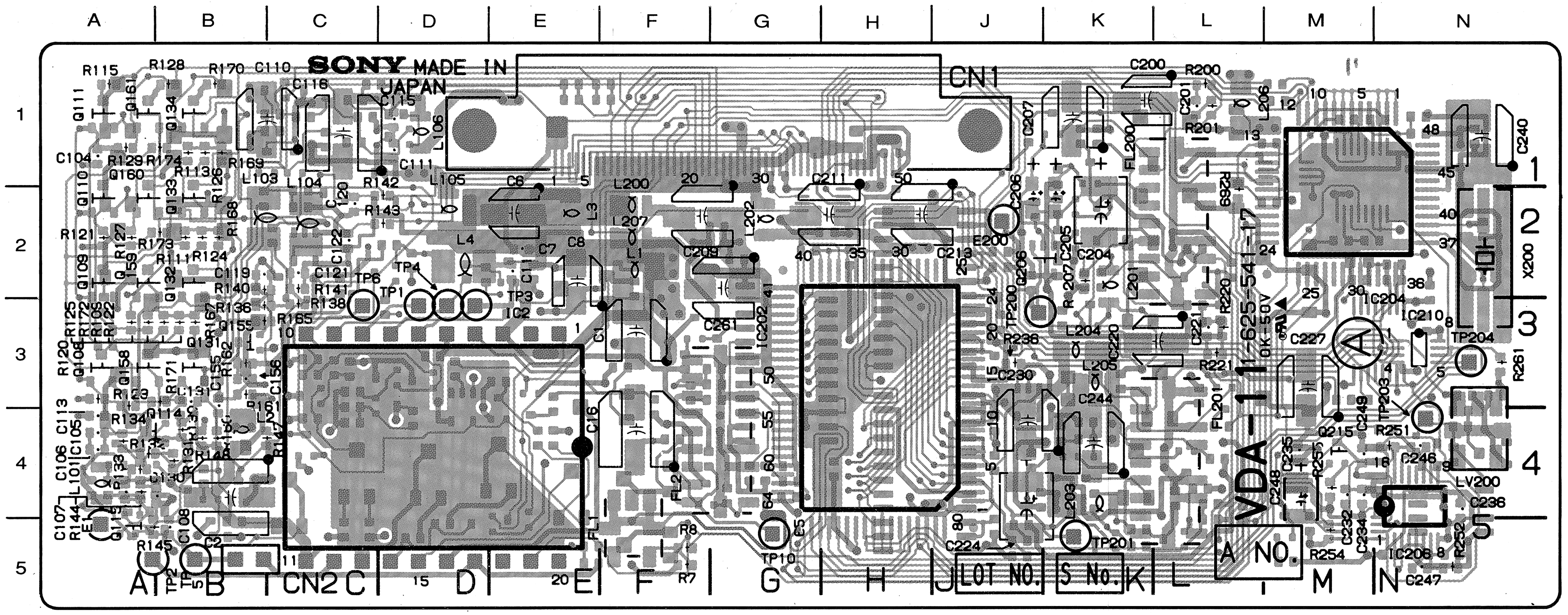
VDA-11/11P -SOLDERING SIDE-

1-625-541-16
BVW-400A
BVW-400AP

VDA-11; CTDM AND C-MODULATOR

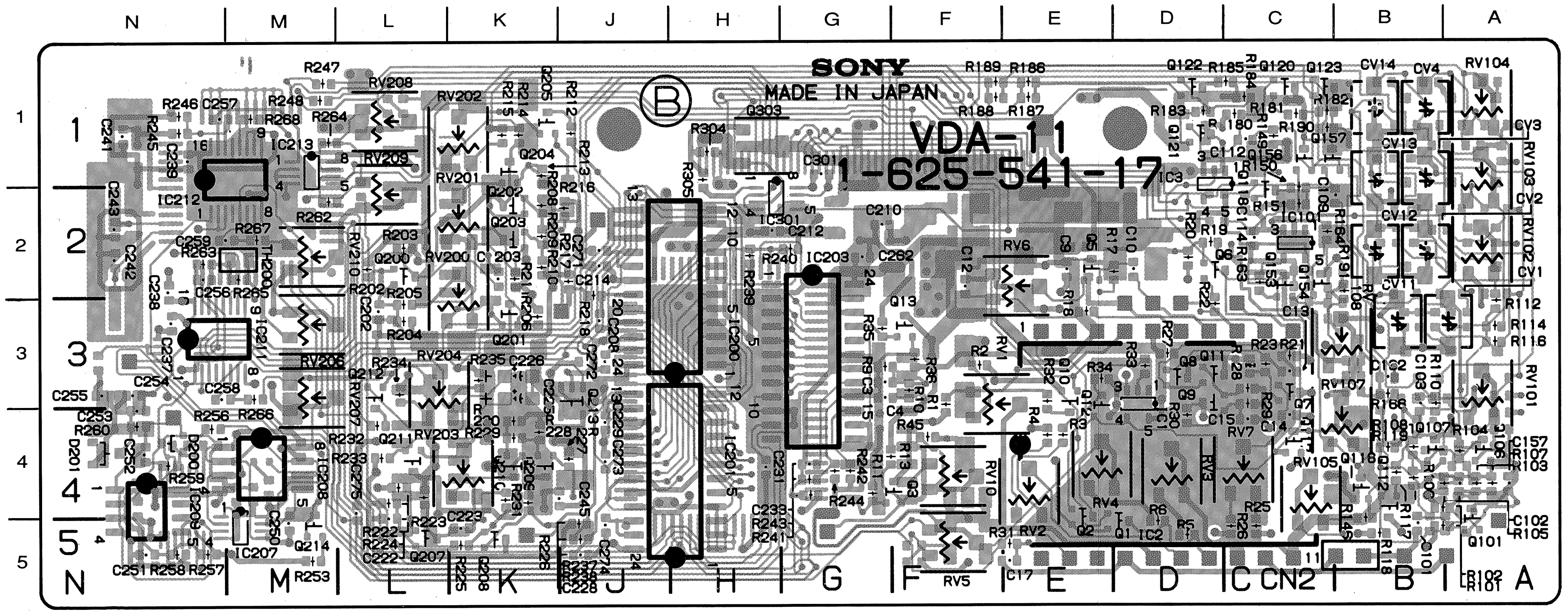
S/N J ; 30936 and higher
UC ; 11054 and higher

CN1	G-1
CN2	B-5
CV1	A-3
CV2	B-2
CV3	B-1
CV4	B-1
CV11	B-3
CV12	B-2
CV13	B-1
CV14	B-1
D200	N-4
D201	N-4
E1	A-5
E200	J-2
FL1	F-5
FL2	G-4
FL200	L-2
FL201	L-4
IC1	D-4
IC2	E-3
IC3	D-2
IC101	C-2
IC200	H-3
IC201	H-5
IC202	H-3
IC203	H-2
IC204	M-2
IC206	N-5
IC207	M-5
IC208	N-4
IC209	N-4
IC210	N-3
IC211	N-3
IC212	N-2
IC213	M-1
IC301	H-2
LV200	N-4
Q1	D-5
Q2	E-5
Q3	F-4
Q5	E-2
Q6	D-2
Q7	C-3
Q8	D-3
Q9	D-3
Q10	E-3
Q11	D-3
Q12	E-4
Q13	F-3
Q101	A-5
Q106	A-4
Q107	B-4
Q108	A-3
Q109	A-2
Q110	A-2
Q111	A-1
Q112	B-4
Q114	A-4
Q115	A-5
Q116	B-4
Q117	C-4
Q118	C-2
Q120	C-1
Q121	D-1
Q122	D-1
Q123	C-1
Q131	B-3
Q132	B-2
Q133	B-2
Q134	B-1
Q153	C-2
Q154	C-2
Q155	B-3
Q156	C-1
Q157	B-1
Q158	A-3
Q159	A-2
Q160	A-2
Q161	A-1
Q200	L-2
Q201	K-3
Q202	K-2
Q203	K-2
Q204	K-1
Q205	K-1
Q206	K-2
Q207	L-5
Q208	K-5
Q209	K-4
Q210	K-4
Q211	L-4
Q212	L-3
Q213	J-3
Q214	M-5
Q215	M-4
Q303	H-1
RV1	F-4
RV2	E-4
RV3	D-4
RV4	E-4
RV5	F-5
RV6	E-2
RV7	C-4
RV10	F-4
RV101	A-3
RV102	A-2
RV103	A-1
RV104	A-1
RV105	C-4
RV107	B-4
RV108	B-3
RV200	K-3
RV201	K-2
RV202	K-1
RV203	K-4
RV204	L-3
RV206	M-3
RV207	M-3
RV208	L-1
RV209	L-2
RV210	M-2
TH200	M-2
TP1	D-3
TP2	A-5
TP3	D-3
TP4	D-3
TP5	B-5
TP6	C-3
TP10	G-5
TP200	J-3
TP201	K-5
TP203	N-4
TP204	N-3
X200	N-2


A
B
C
D
E
F
G
H
J
K
L
M
N
1
2
3
4
5
SONY MADE IN JAPAN
CN1
CN2
VDA-11 1-625-541-17
LOT NO.
S No.
A NO.
X200

VDA-11/11P -COMPONENT SIDE-

1-625-541-17
BVW-400A
BVW-400AP


N
M
L
K
J
H
G
F
E
D
C
B
A
1
2
3
4
5
SONY
MADE IN JAPAN
VDA-11
1-625-541-17
CN2

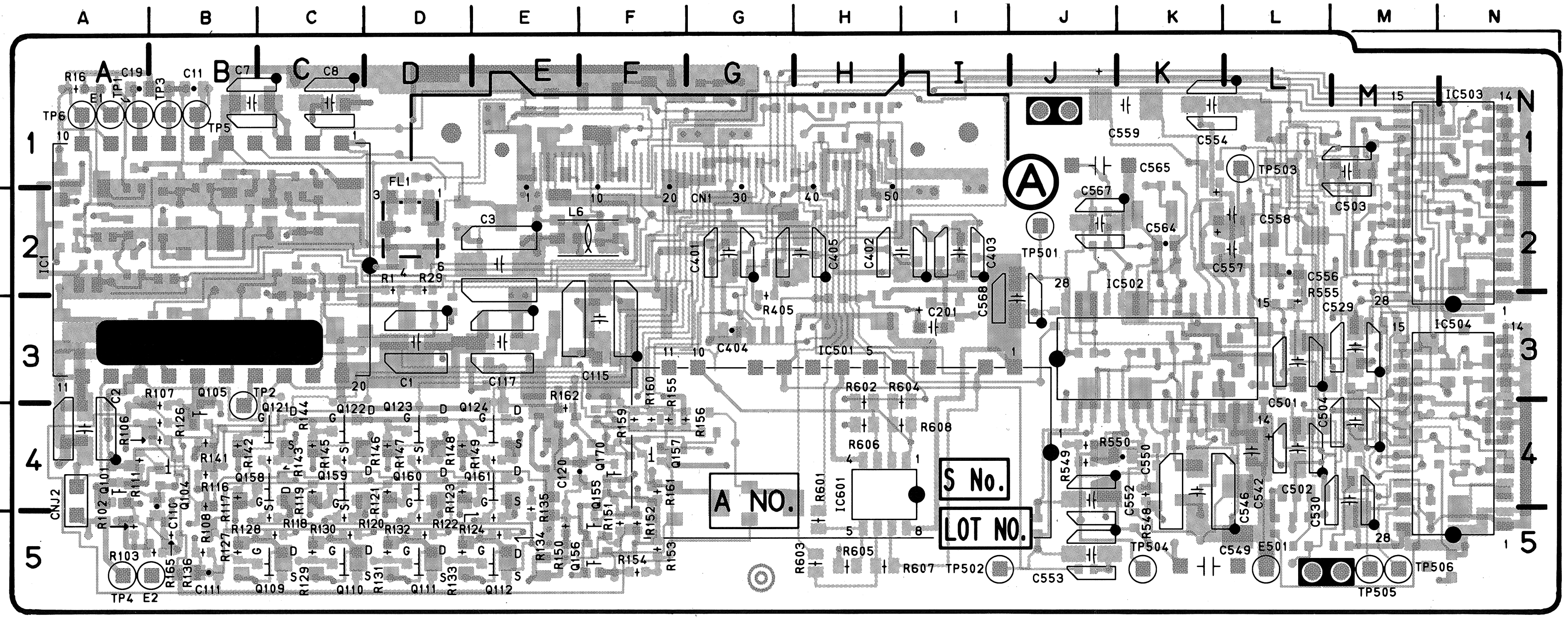
VDA-11/11P -SOLDERING SIDE-

1-625-541-17
BVW-400A
BVW-400AP

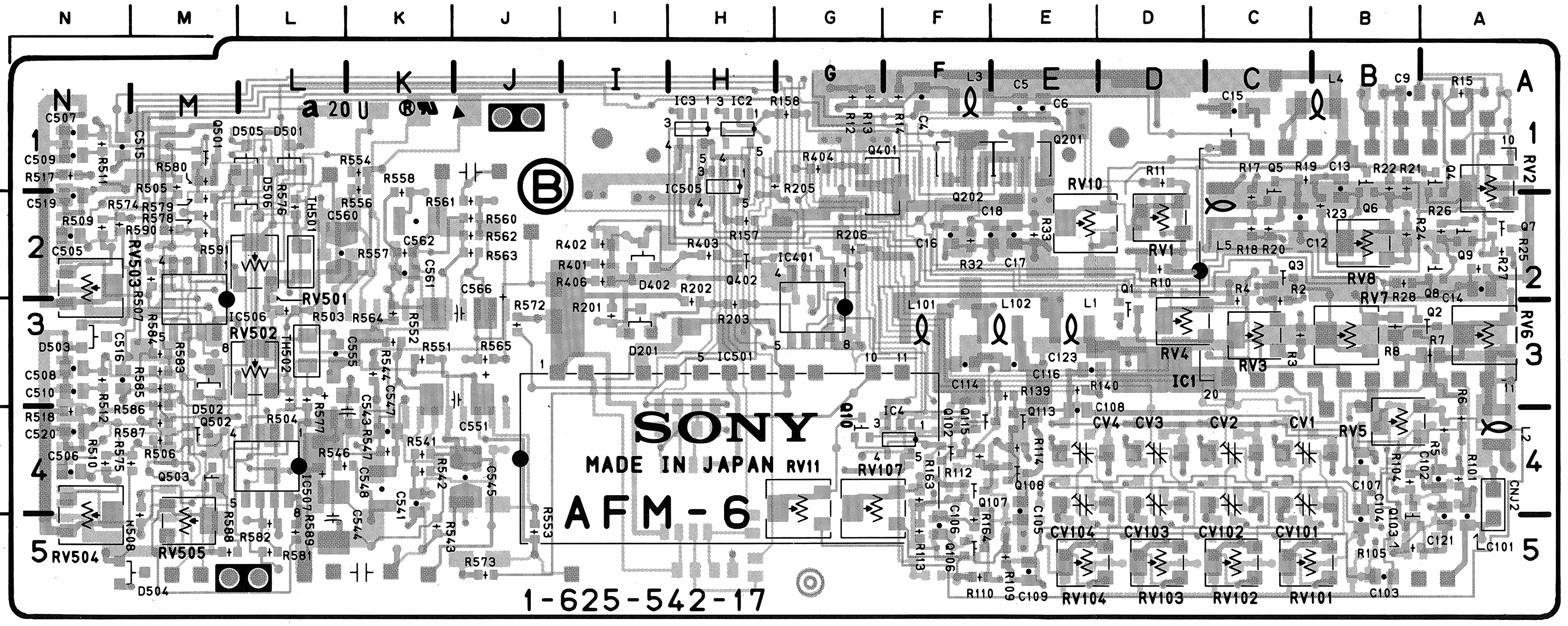
(Page 12-68 to 71 are missing.)

AFM-6; Y-MODULATOR, AFM

CN1	G-2
CN2	C-5
CNJ2	A-5
CV1	C-4
CV2	C-4
CV3	D-4
CV4	E-4
CV101	C-5
CV102	C-5
CV103	D-4
CV104	E-4
D201	I-3
D402	I-2
D501	L-1
D502	M-3
D503	N-3
D504	M-5
D505	L-1
D506	L-2
E1	A-1
E2	A-5
E501	L-5
FL1	D-2
IC1	A-2
IC2	H-1
IC3	H-1
IC4	F-4
IC401	G-3
IC501	H-3
IC502	J-2
IC503	N-1
IC504	N-3
IC505	H-1
IC506	L-3
IC507	L-4
IC601	I-4
Q1	D-2
Q2	A-3
Q3	C-2
Q4	A-1
Q5	C-1
Q6	B-2
Q7	A-2
Q8	A-2
Q9	A-2
Q101	A-4
Q102	F-4
Q103	B-5
Q104	A-4
Q105	B-3
Q106	F-5
Q107	F-4
Q108	E-4
Q109	C-5
Q110	C-5
Q111	D-5
Q112	E-5
Q113	E-4
Q115	F-4
Q121	C-4
Q122	C-4
Q123	D-4
Q124	D-4
Q155	F-4
Q156	E-5
Q157	F-4
Q158	B-4
Q159	C-4
Q160	D-4
Q161	D-4
Q170	F-4
Q201	E-1
Q202	F-2
Q401	F-1
Q402	H-2
Q501	M-1
Q502	M-4
Q503	M-4
RV1	D-2
RV2	A-1
RV3	C-3
RV4	D-3
RV5	B-4
RV6	A-3
RV7	B-2
RV8	B-2
RV10	E-1
RV101	C-5
RV102	C-5
RV103	D-5
RV104	E-5
RV107	F-4
RV501	L-2
RV502	L-3
RV503	N-2
RV504	N-5
RV505	M-5
TH501	L-2
TH502	L-3
TP1	A-1
TP2	B-3
TP3	B-1
TP4	A-5
TP5	B-1
TP6	A-1
TP501	J-2
TP502	I-5
TP503	L-1
TP504	K-5
TP505	M-5
TP506	M-5



AFM-6/6P -COMPONENT SIDE-
1-625-542-17
BVW-400A
BVW-400AP

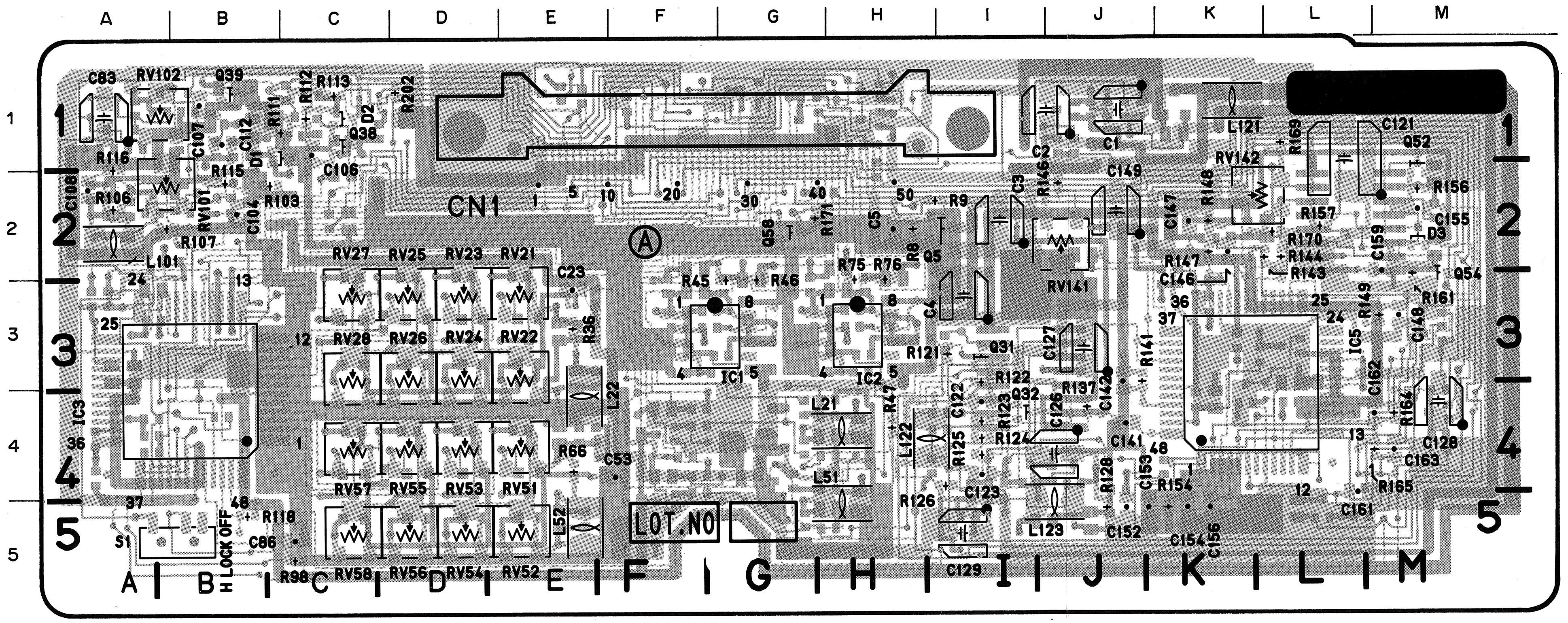


AFM-6/6P -SOLDERING SIDE-
1-625-542-17
BVW-400A
BVW-400AP

(Page 12-74 to 77 are missing.)

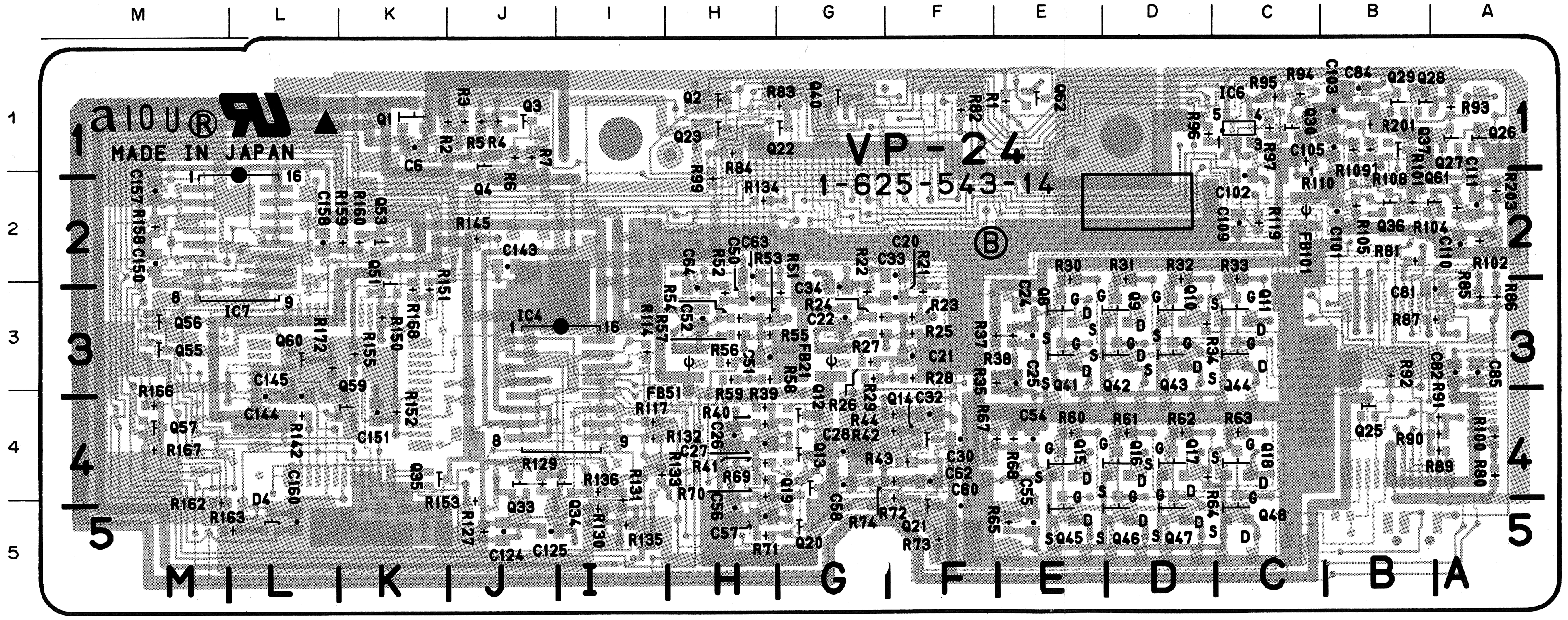
VP-24; VIDEO PB

CN1	D-2
D1	C-1
D2	C-1
D3	M-2
D4	L-4
FB21	G-3
FB51	I-3
FB101	C-2
IC1	G-3
IC2	H-3
IC3	A-4
IC4	J-3
IC5	L-3
IC6	C-1
IC7	L-3
Q1	K-1
Q2	H-1
Q3	J-1
Q4	J-2
Q5	I-2
Q8	E-3
Q9	D-3
Q10	D-3
Q11	C-3
Q12	G-4
Q13	G-4
Q14	F-4
Q15	E-4
Q16	D-4
Q17	D-4
Q18	C-4
Q19	G-4
Q20	G-5
Q21	F-5
Q22	G-1
Q23	H-1
Q25	B-4
Q26	A-1
Q27	A-1
Q28	A-1
Q29	B-1
Q30	C-1
Q31	I-3
Q32	I-4
Q33	J-5
Q34	I-5
Q35	K-4
Q36	B-2
Q37	B-1
Q38	C-1
Q39	B-1
Q40	G-1
Q41	E-3
Q42	D-3
Q43	D-3
Q44	C-3
Q45	E-5
Q46	D-5
Q47	D-5
Q48	C-5
Q51	K-2
Q52	M-1
Q53	K-2
Q54	M-3
Q55	M-3
Q56	M-3
Q57	M-4
Q58	G-2
Q59	K-3
Q60	L-3
Q61	A-2
Q62	E-1
RV21	E-2
RV23	D-2
RV25	D-2
RV27	C-2
RV51	E-4
RV53	D-4
RV55	D-4
RV57	C-4
RV101	B-2
RV102	B-1
RV141	J-3
S1	A-5


A
B
C
D
E
F
G
H
I
J
K
L
M
1
2
3
4
5
CN1
IC1
IC2
IC3
IC5
RV21
RV22
RV23
RV24
RV25
RV26
RV27
RV28
RV51
RV52
RV53
RV54
RV55
RV56
RV57
RV58
RV101
RV102
RV141
RV142
L21
L22
L51
L52
L101
L121
L122
L123
LOT.NO
S1
LOCK OFF
Ⓐ

VP-24/24P -COMPONENT SIDE-

1-625-543-14
BVW-400A
BVW-400AP


M
L
K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
MADE IN JAPAN
VP-24
1-625-543-14
IC4
IC6
IC7
FB21
FB51
FB101
Ⓑ

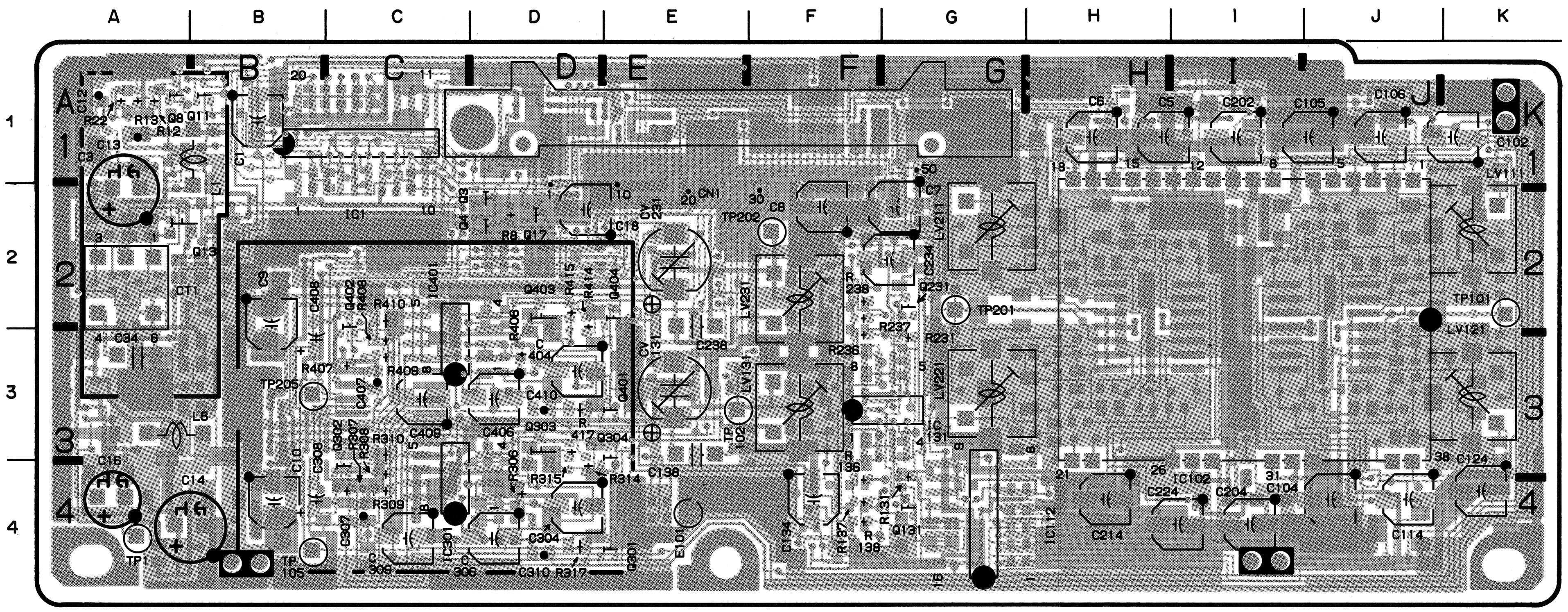
VP-24/24P -SOLDERING SIDE-

1-625-543-14
BVW-400A
BVW-400AP

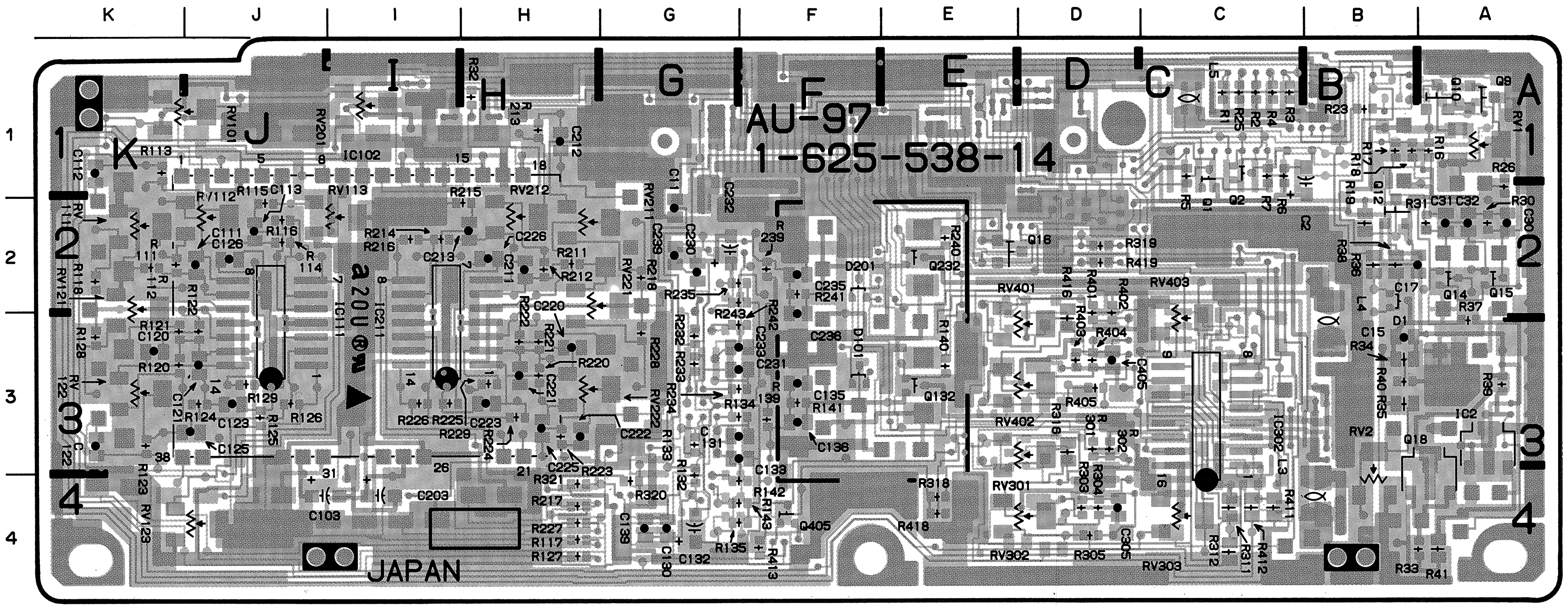
(Page 12-80 to 83 are missing.)

AU-97; AUDIO REC/PB

CN1	E-2
CT1	A-2
CV131	E-3
CV231	E-2
D1	B-3
D101	F-3
D201	F-2
E101	E-4
IC1	C-2
IC2	A-3
IC102	I-4
IC111	I-2
IC112	H-4
IC131	G-3
IC211	I-2
IC301	C-4
IC302	C-3
IC401	C-2
LV111	K-1
LV121	K-3
LV131	F-3
LV211	G-2
LV221	G-3
LV231	F-2
Q1	C-2
Q2	C-2
Q3	C-2
Q4	C-2
Q8	A-1
Q9	A-1
Q10	A-1
Q11	B-1
Q12	B-2
Q13	B-2
Q14	A-2
Q15	A-2
Q16	D-2
Q17	D-2
Q18	B-3
Q131	G-4
Q132	E-3
Q231	G-2
Q232	E-2
Q301	E-4
Q302	C-3
Q303	D-3
Q304	E-3
Q401	E-3
Q402	C-2
Q403	D-2
Q404	E-2
Q405	F-4
RV1	A-1
RV2	B-3
RV101	J-1
RV111	K-2
RV112	J-2
RV113	I-2
RV121	K-2
RV122	K-3
RV123	K-4
RV201	J-1
RV211	G-2
RV212	H-2
RV221	G-2
RV222	G-3
RV302	E-4
RV303	C-4
RV402	E-3
RV403	C-2
TP1	A-4
TP101	K-2
TP102	E-3
TP105	B-4
TP201	G-2
TP202	E-2
TP205	B-3


A
B
C
D
E
F
G
H
I
J
K
1
2
3
4
CN1
IC1
IC2
CT1
TP1
TP101
TP105
TP201
TP202
TP205
LV111
LV121
LV131
LV211
LV221
LV231
CV131
CV231
E101
IC102
IC112

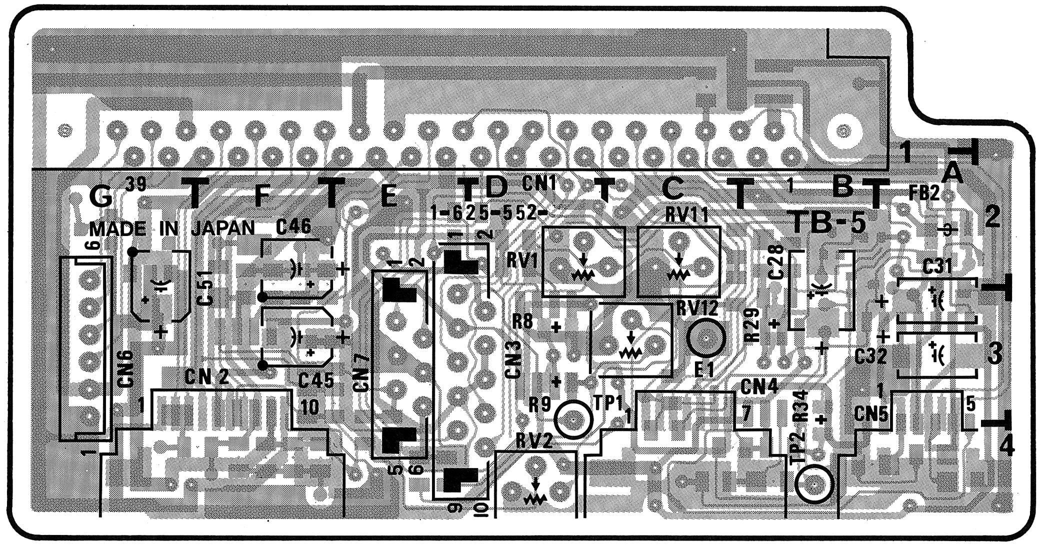
AU-97/97P -COMPONENT SIDE-
1-625-538-14
BVW-400A
BVW-400AP


K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
AU-97
1-625-538-14
JAPAN
RV101
RV201
RV111
RV112
RV113
RV121
RV122
RV123
RV211
RV212
RV221
RV222
RV301
RV302
RV303
RV401
RV402
RV403
RV1
RV2
IC102
IC111
IC211
IC302
IC2

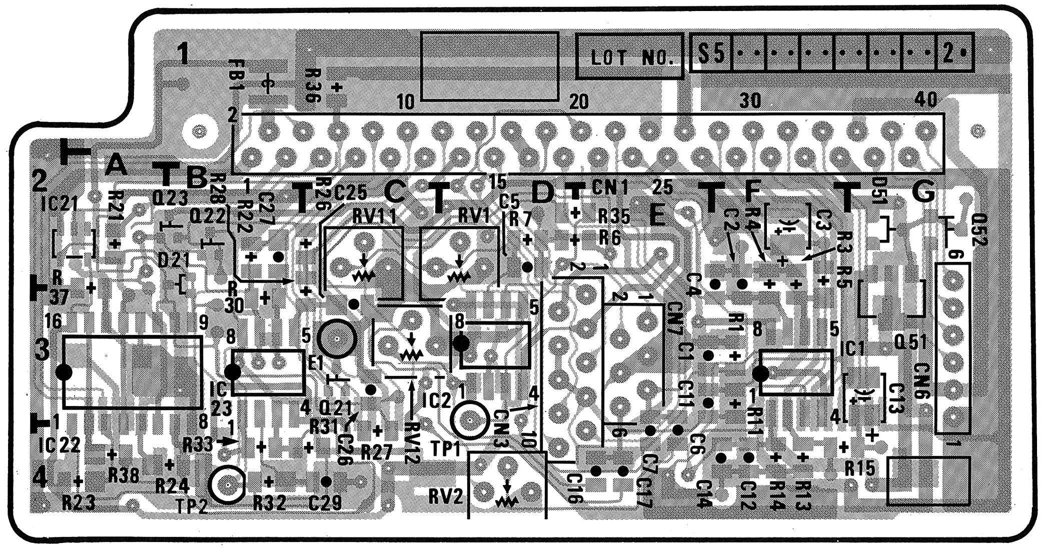
AU-97/97P -SOLDERING SIDE-
1-625-538-14
BVW-400A
BVW-400AP

(Page 12-86 to 89 are missing.)

TB-5; TERMINAL BOARD, AUDIO CONFI


G
39
F
E
D
CN1
C
B
A
1
2
3
4
MADE IN JAPAN
1-625-552-
TB-5
FB2
C46
C51
C45
CN2
CN6
CN7
CN3
CN4
CN5
RV1
RV2
RV11
RV12
R8
R9
R29
R34
C28
C31
C32
E1
TP1
TP2
10

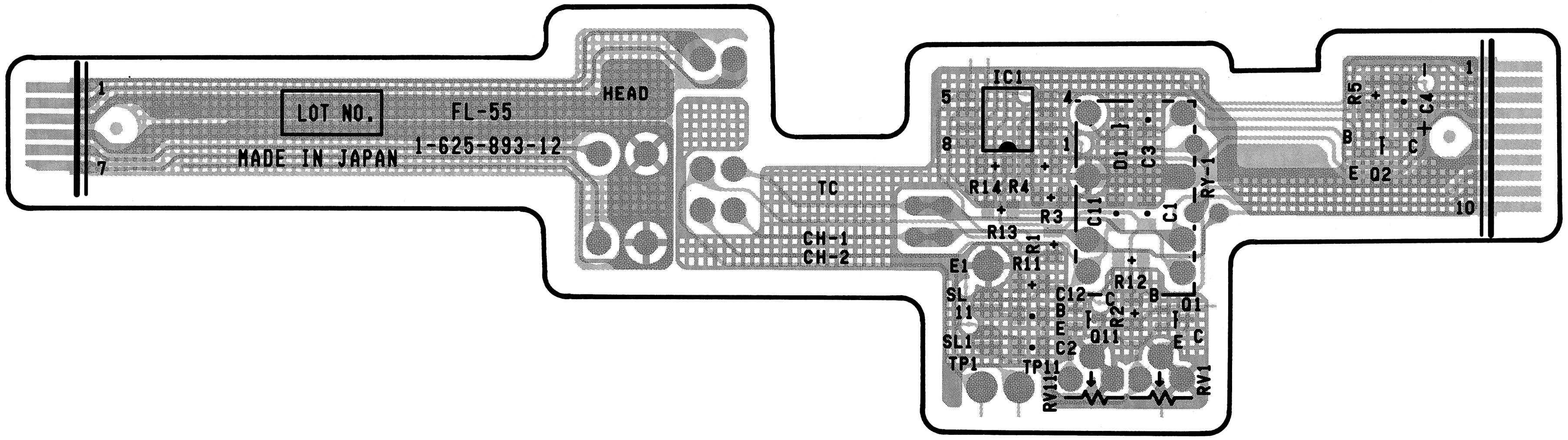
TB-5 -COMPONENT SIDE-
1-625-552-14
BVW-400A
BVW-400AP


LOT NO.
S5
1
2
10
20
30
40
A
B
C
D
E
F
G
FB1
R36
IC21
IC22
IC1
IC2
Q21
Q22
Q23
Q51
Q52
D21
D51
CN1
CN3
CN6
CN7
RV1
RV2
RV11
RV12
E1
TP1
TP2
C25
C27
C5
R35
R6
R7
R21
R22
R23
R24
R26
R27
R28
R30
R31
R32
R33
R37
R38
C26
C29
C16
C17
C14
C12
C13
C11
C1
C2
C3
C4
C6
R1
R3
R4
R5
R11
R13
R14
R15

TB-5 -SOLDERING SIDE-
1-625-552-14
BVW-400A
BVW-400AP

(Page 12-92 and 93 are missing.)

FL-55; AUDIO HEAD AMP, RELAY BOARD


1
7
LOT NO.
FL-55
MADE IN JAPAN
1-625-893-12
HEAD
TC
CH-1
CH-2
IC1
5
8
4
1
R14
R4
R3
R13
R1
R11
E1
SL
I1
SL1
TP1
TP11
C12
B
E
C2
C
R2
Q11
R12
B
Q1
E
C
RV11
RV1
C11
D1
C3
C1
RY-1
R5
C4
B
C
E
Q2
1
10

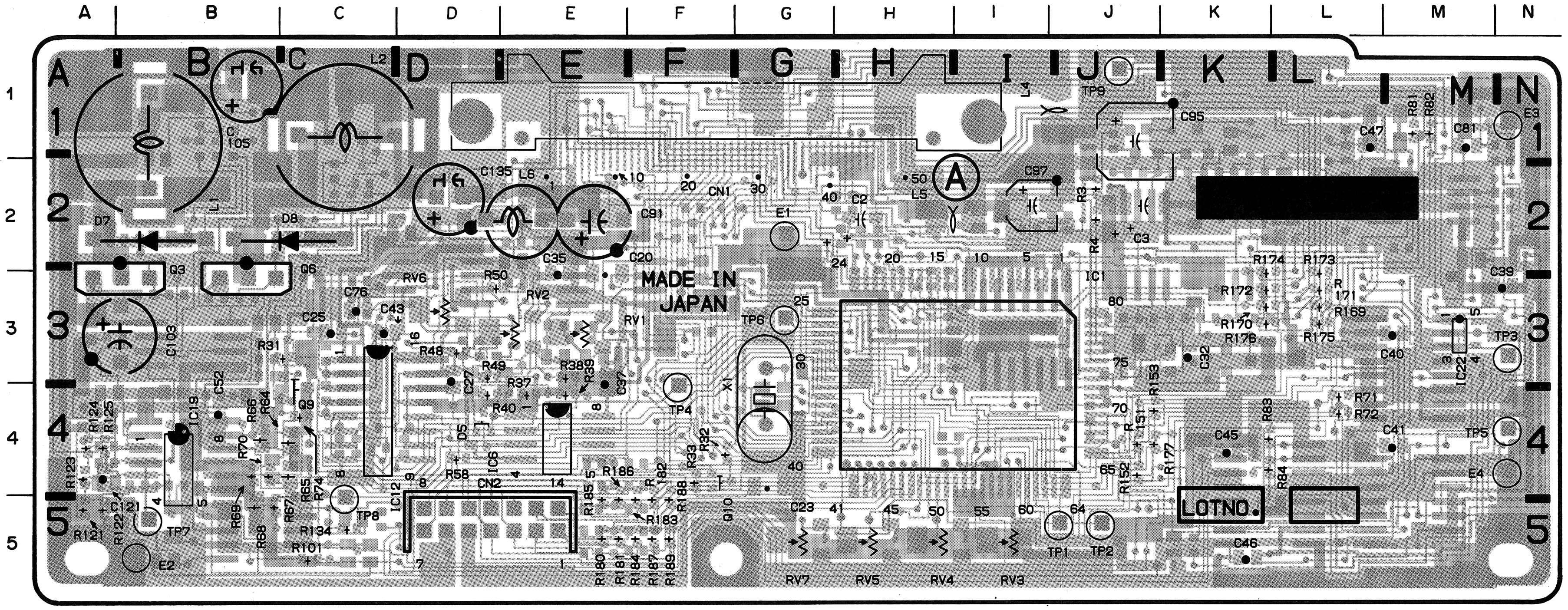
FL-55/55P -COMPONENT SIDE-

1-625-893-12
BVW-400A
BVW-400AP

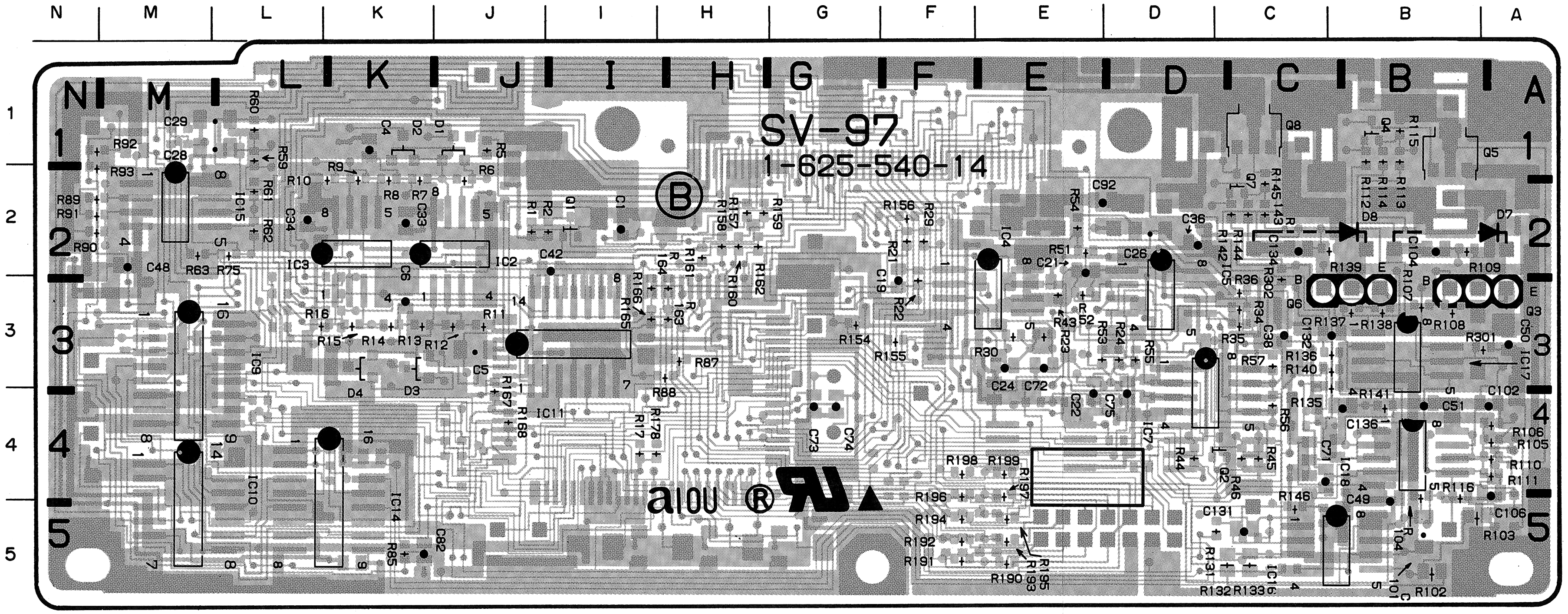
(Page 12-96 to 99 are missing.)

SV-97A; DRUM/CAPSTAN SERVO

CN1	F-2
CN2	D-4
D1	J-1
D2	K-1
D3	K-3
D4	K-4
D5	D-4
D7	A-2
D8	C-2
E1	G-2
E2	B-5
E3	N-1
E4	N-4
IC1	J-3
IC2	J-2
IC3	L-2
IC4	E-2
IC5	D-3
IC6	D-4
IC7	D-4
IC9	L-3
IC10	L-4
IC11	J-4
IC12	C-4
IC14	K-5
IC15	L-2
IC16	C-5
IC17	A-3
IC18	B-4
IC19	B-4
IC22	M-3
Q1	I-2
Q2	D-4
Q3	B-3
Q4	B-1
Q5	A-1
Q6	C-3
Q7	C-2
Q8	C-1
Q9	C-4
Q10	F-5
RV1	F-3
RV2	E-3
RV3	I-5
RV4	H-5
RV5	H-5
RV6	D-3
RV7	G-5
TP1	J-5
TP2	J-5
TP3	N-3
TP4	F-4
TP5	M-4
TP6	G-3
TP7	B-5
TP8	C-5
TP9	J-1
X1	F-3


A
B
C
D
E
F
G
H
I
J
K
L
M
N
1
2
3
4
5
MADE IN JAPAN
LOTNO.
CN1
CN2
X1
IC1
TP1
TP2
TP3
TP4
TP5
TP6
TP7
TP8
TP9
RV1
RV2
RV3
RV4
RV5
RV6
RV7

SV-97A/97AP -COMPONENT SIDE-
1-625-540-14
BVW-400A
BVW-400AP

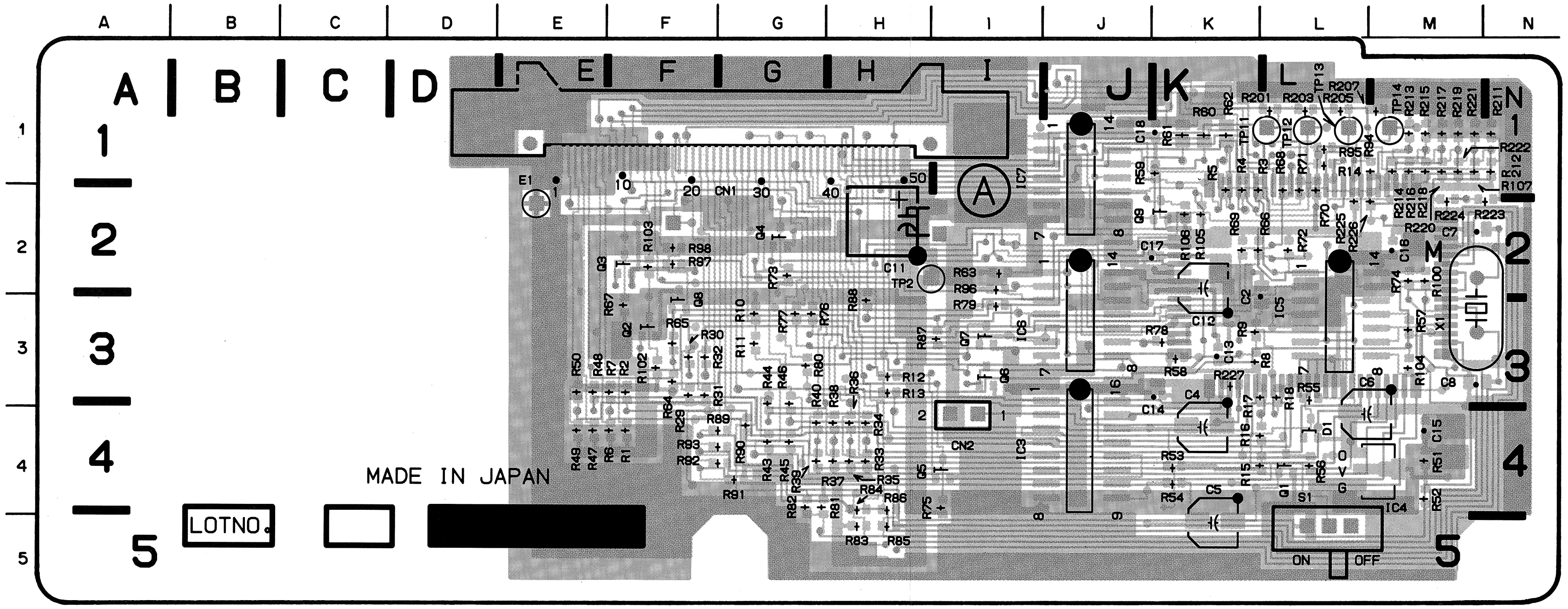

N
M
L
K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
SV-97
1-625-540-14
B
a10U

SV-97A/97AP -SOLDERING SIDE-
1-625-540-14
BVW-400A
BVW-400AP

(Page 12-102 to 105 are missing.)

SY-117C; SYSTEM CONTROL

CN1	G-2
CN2	I-4
D1	L-4
E1	E-1
IC1	L-4
IC3	I-4
IC4	M-4
IC5	L-3
IC6	I-3
IC7	I-1
Q1	L-4
Q2	F-3
Q3	F-2
Q4	G-2
Q5	H-4
Q6	I-3
Q7	I-3
Q8	F-3
Q9	J-2
S1	L-4
TP2	H-2
TP11	K-1
TP12	L-1
TP13	L-1
TP14	M-1
X1	M-3

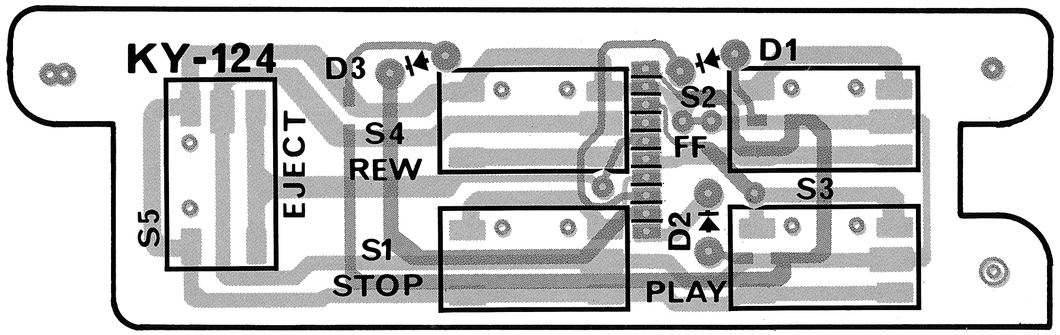

A
B
C
D
E
F
G
H
I
J
K
L
M
N
1
2
3
4
5
CN1
CN2
IC3
IC5
IC7
TP2
C11
MADE IN JAPAN
LOTNO.
S1
ON
OFF
IC4
X1

SY-117C/117CP -COMPONENT SIDE-

1-625-539-21
BVW-400A
BVW-400AP

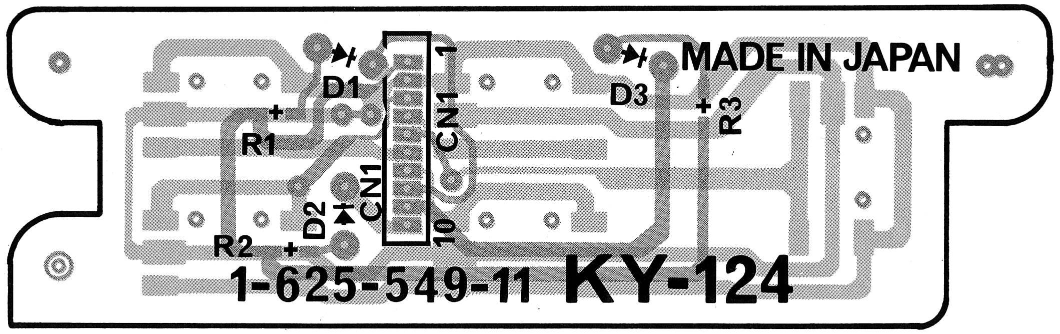
(Page 12-108 to 111 are missing.)

KY-124; KEY BOARD


KY-124
D3
D1
S2
S4
REW
FF
EJECT
S3
S5
D2
S1
STOP
PLAY

KY-124 -COMPONENT SIDE-

1-625-549-11
BVW-400A
BVW-400AP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MADE IN JAPAN
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1-625-549-11
KY-124

KY-124 -SOLDERING SIDE-

1-625-549-11
BVW-400A
BVW-400AP

SECTION 13

SPARE PARTS AND FIXTURE

13-1. PARTS INFORMATION

1. **Safety Related Component Warning**

   Components identified by shading marked with ⚠ on the schematic diagrams, exploded views and electrical spare parts list are critical to safe operation. Replace these components with Sony parts whose parts numbers appear as shown in this manual or in service manual supplements published by Sony.

2. Replace parts that are supplied from Sony Parts Center can sometimes have different shape and external appearance than what are actually used in equipment. This is due to"accommodating the improved parts and/or engineering changes" or"standardization of genuine parts."
   - This manual's exploded view and electrical spare parts lists are indicating the parts numbers of "the standardized genuine parts at present."
   - Regarding engineering parts and diagrams changes in our engineering department, refer to Sony service bulletins and service manual supplements.

3. The parts marked with"S" in the SP column of the exploded views and electrical spare parts list are normally required for routine service work. Orders for parts marked with "O" will be processed, but allow for additional delivery time.

4. Item with no parts number and/or no description are not stocked because they are seldom required for routine service.

5. **Abbreviation**

REF. No.	DESCRIPTION	REF. No.	DESCRIPTION	REF. No.	DESCRIPTION
BT	BATTERY	FB	FERRITE BEAD	RV	VARIABLE RESISTOR
BZ	BUZZER	FL	FILTER	RY	RELAY
C	CAPACITOR	IC	IC	S	SWITCH
CN	CONNECTOR	L	INDUCTOR	T	TRANSFORMER
CP	COMBINATION PARTS	LV	VARIABLE INDUCTOR	TH	THERMISTOR
CV	VARIABLE CAPACITOR	Q	TRANSISTOR	TM	TIMER
D	DIODE	R	RESISTOR	VDR	VARISTOR
DL	DELAY LINE	RB	RESISTOR BLOCK	X	OSCILLATOR

All capacitors are in micro farads unless otherwise specified.
All inductors are in micro henries unless otherwise specified.
All resistors are in ohms.

6. Regarding engineering parts changes in our engineering department, refer to SECTION 14 "CHANGED PARTS".

13-2. EXPLODED VIEW

FRONT PANEL

No.	Part No.	SP	Description
1	A-7515-144-A	o	MOUNTED CIRCUIT BOARD, DR-124
2	A-7575-205-B	s	CCD UNIT-W400A(N)(J,UC) *1
3	A-7575-206-C	s	CCD UNIT-W400AP(P)(EK) *2
4	A-8262-466-A	o	SW (C) ASSY, FRONT
5	X-3165-654-1	o	COVER ASSY, SHIELD
6	X-3166-695-2	o	PLATE (C) ASSY, ORNAMENTAL, SW
7	X-3710-064-3	o	CASE ASSY, SHIELD
8	X-3722-375-9	o	FRAME SUB ASSY, FRONT
9	1-554-395-00	s	SWITCH, TOGGLE "AUTO W/B BAL"
10	1-554-396-00	s	SWITCH, TOGGLE "SHUTTER"
11	1-629-570-11	o	PRINTED CIRCUIT BOARD, SW-357
12	1-643-714-11	o	PRINTED CIRCUIT BOARD, SW-563
13	2-623-773-11	s	BOLT (M3X8), STAINLESS
14	3-176-005-01	s	KNOB (EVS)
15	3-176-013-01	o	RETAINER, PC BOARD
16	3-678-629-00	s	LEVER, MOUNT
17	3-678-684-00	o	HOLDER, CABLE
18	3-699-048-01	s	CAP, MOUNT
19	3-701-505-00	s	SET SCREW, DOUBLE POINT 3X3
20	3-710-024-01	o	PACKING, VF
21	3-710-054-01	s	KNOB, FILTER
22	3-711-715-01	o	RUBBER, SHIELD
23	3-725-295-01	s	SCREW, (+) (B3)
24	3-729-068-01	o	PLATE (FR), SHIELD
25	3-729-069-01	s	BUTTON, VTR START
26	3-734-518-01	o	SHEET, INSULATING, SHIELD CASE
27	3-734-519-03	o	CASE, SHIELD
28	3-734-520-01	o	SHEET, INSULATING, SHIELD CASE
29	3-734-535-02	o	SUPPORT (STAY T)
30	3-734-593-03	o	SHEET, SHIELD COVER
31	3-742-010-01	o	STAY (T3), SHIELD PLATE
32	3-742-013-01	o	STAY (B5), SHIELD PLATE
33	3-742-064-01	o	FINGER, SHIELD
34	3-742-206-01	o	SHEET (F), SHIELD COVER
35	3-884-053-00	s	RING (O)
36	1-547-416-11	o	FILTER UNIT, OPTICAL
37	3-734-514-02	o	SUPPORT (Y)
38	3-178-338-01	o	PLATE (SW), SHIELD

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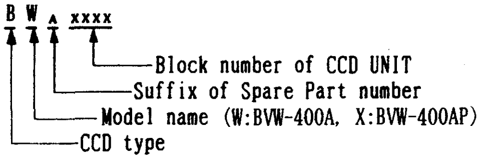
※2) CCD BLOCK NUMBER; B X B xxxx

How to read the CCD BLOCK NUMBER


B W A xxxx
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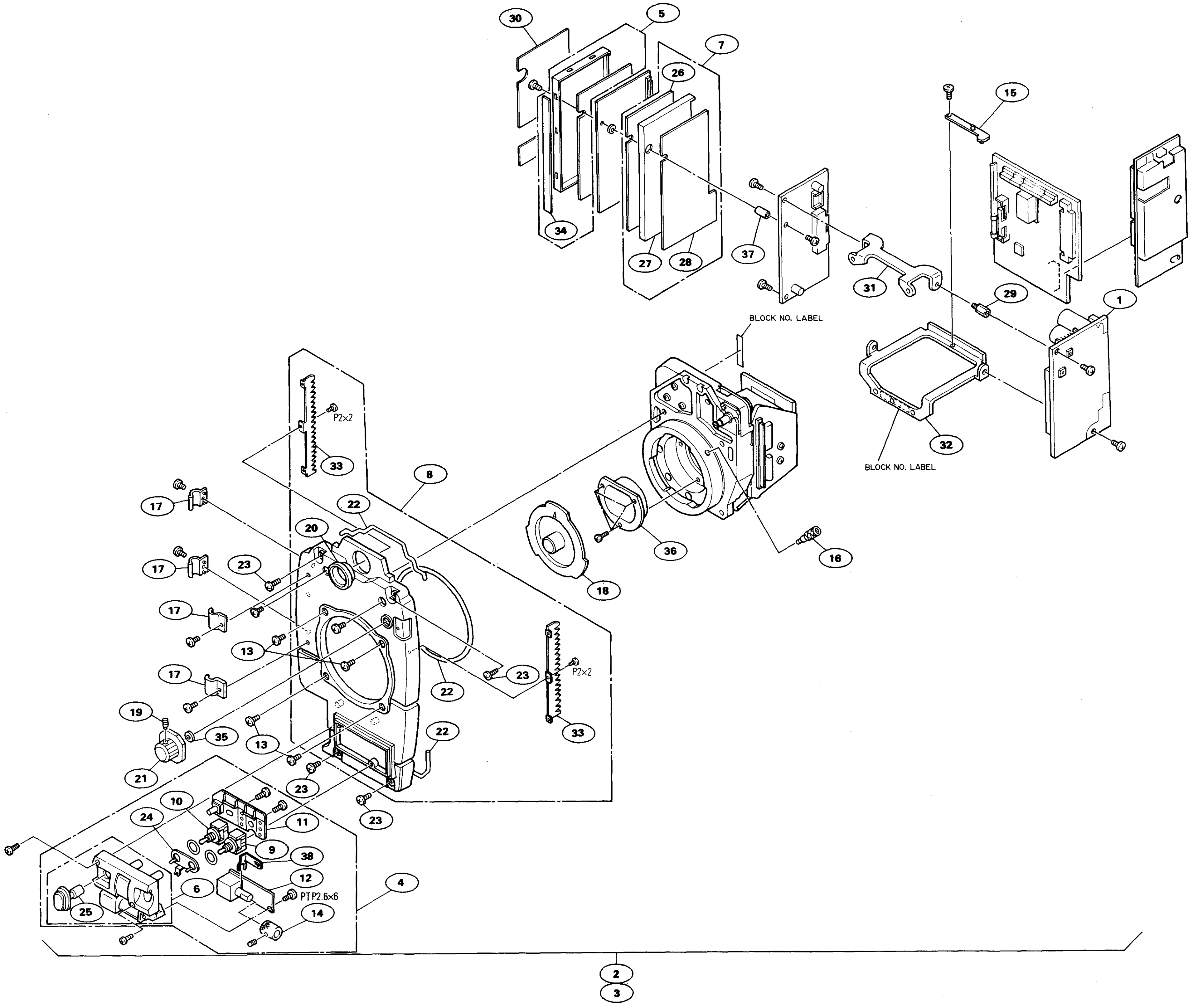
Suffix of Spare Part number
Model name (W:BVW-400A, X:BVW-400AP)
CCD type

FRONT PANEL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BLOCK NO. LABEL
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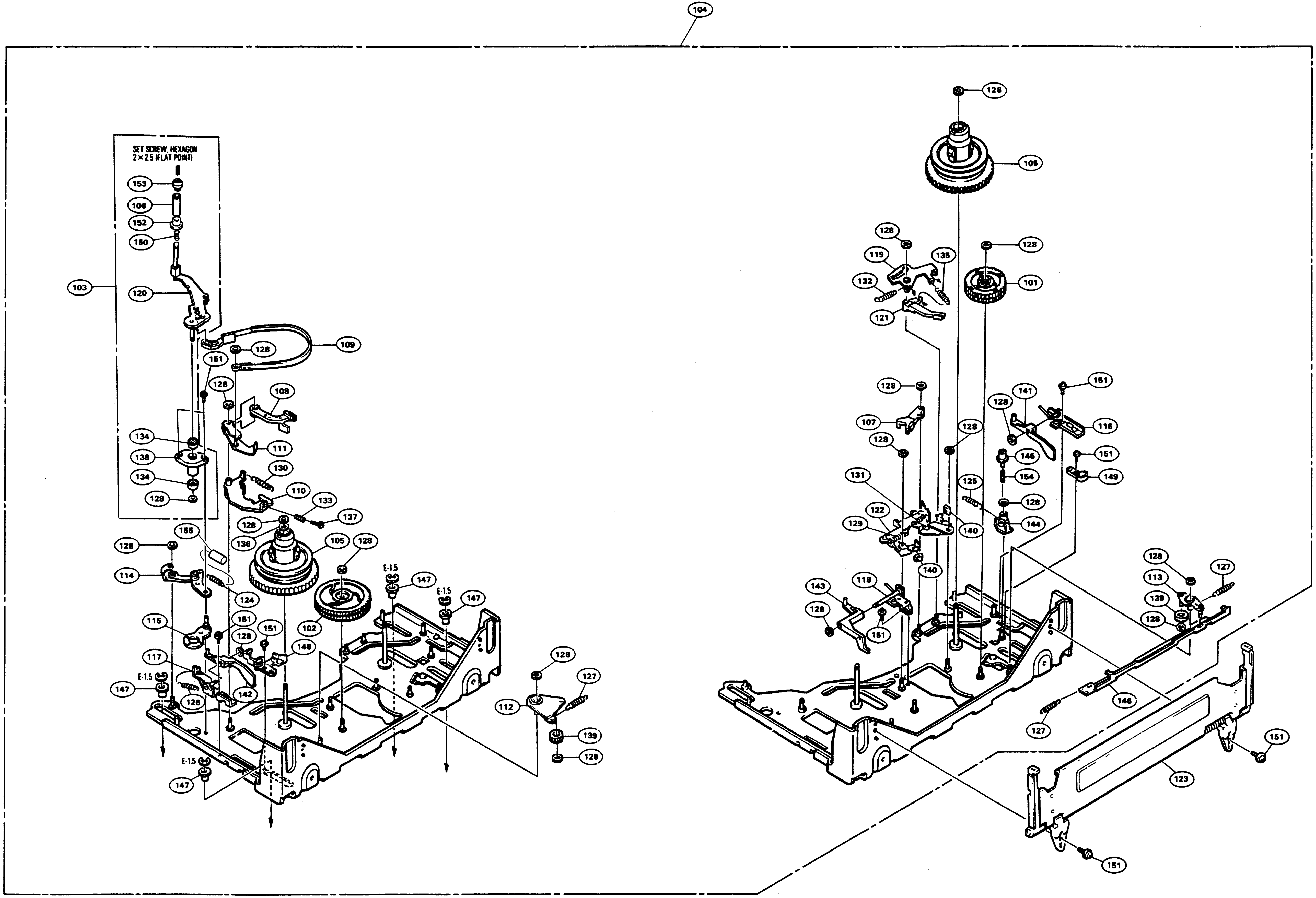
P2×2
PTP2.6×6

REEL CHASSIS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SET SCREW, HEXAGON
2 × 2.5 (FLAT POINT)
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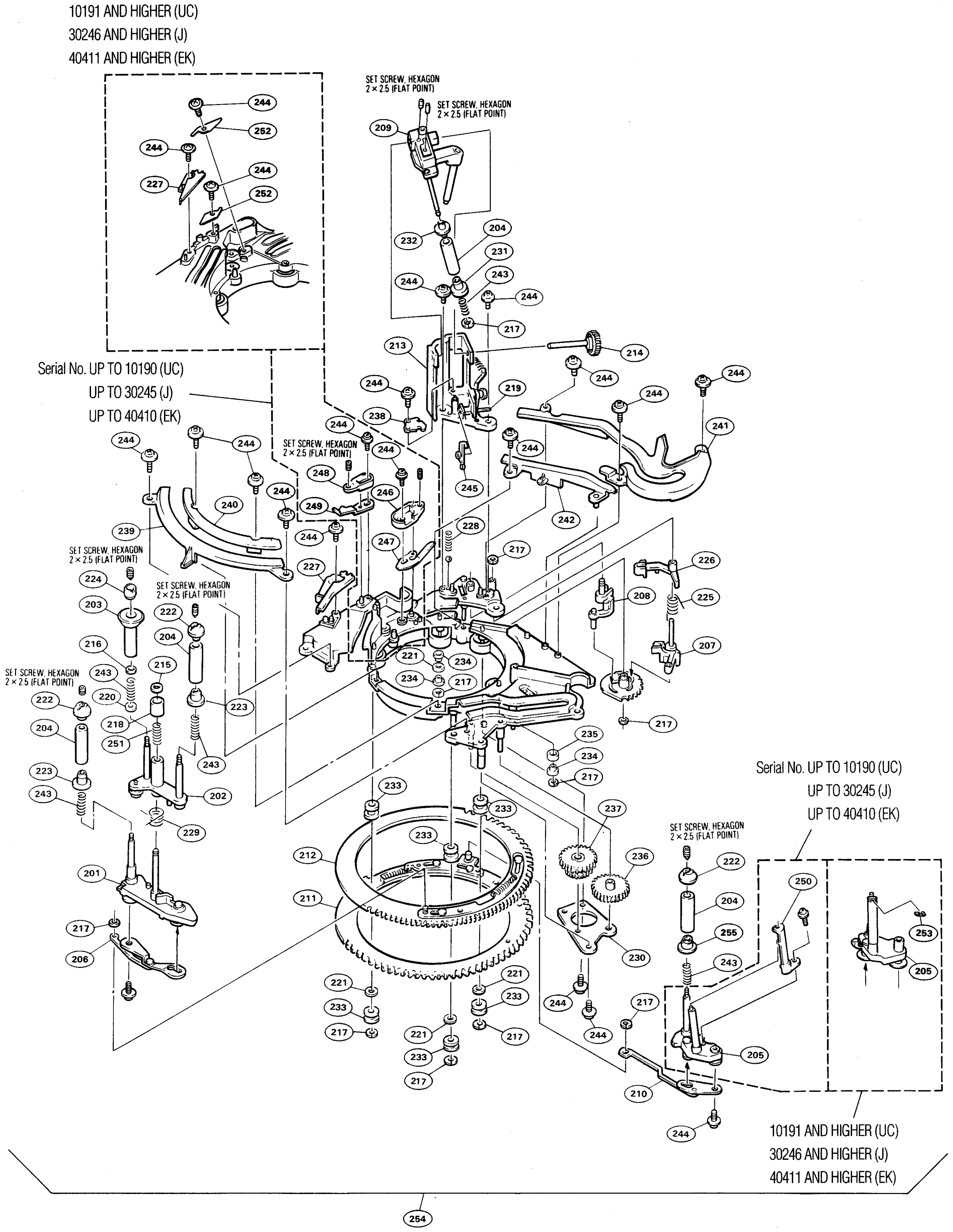
REEL CHASSIS

No.	Part No.	SP	Description
101	A-6740-091-D	s	IDLER ASSY, T
102	A-8278-249-C	s	IDLER ASSY, S
103	A-6742-067-L	s	TENSION REGULATOR ASSY
104	A-8272-685-E	o	CHASSIS ASSY, REEL
105	X-3722-321-3	s	TABLE ASSY, REEL
106	X-3722-322-1	s	ROLLER ASSY, POM
107	X-3722-323-2	s	BRAKE ASSY, T SOFT
108	X-3722-324-5	s	BRAKE ASSY, S SOFT
109	X-3722-325-3	s	BAND ASSY, TENSION REGULATOR
110	X-3722-326-2	o	LEVER (A) ASSY, SUPPORT LEVER
111	X-3722-327-3	o	SUPPORT (B) ASSY, BAND
112	X-3722-328-1	o	ARM ASSY, S JOINT GEAR
113	X-3722-329-1	o	ARM ASSY, T JOINT GEAR
114	X-3722-330-1	o	HOOK ASSY, SPRING
115	X-3722-331-1	o	DRIVING ASSY,TENSION REGULATOR
116	X-3722-332-1	o	HOLDER (A) ASSY
117	X-3722-333-3	o	HOLDER (B) ASSY
118	X-3722-334-1	o	HOLDER (C) ASSY
119	X-3722-335-2	o	LEVER ASSY, PINCH ARM LOCK
120	X-3722-351-8	o	ARM ASSY, TENSION REGULATOR
121	X-3722-410-2	s	BRAKE ASSY, T SUB SOFT
122	X-3722-421-1	o	SLIDER ASSY, BRAKE
123	X-3722-423-1	o	PLATE (B) ASSY, BLIND
124	3-489-310-XX	s	SPRING, TENSION, T19
125	3-514-127-01	s	SPRING, TENSION
126	3-191-351-01	s	SPRING, TENSION
127	3-527-189-11	s	SPRING, TENSION
128	3-559-408-11	s	WASHER, POLYETHYLENE, DIA.1.2
129	3-564-935-00	s	SPRING, TENSION
130	3-567-028-11	s	SPRING, TENSION
131	3-570-590-00	s	SPRING, TENSION
132	3-570-951-00	s	SPRING, TENSION
133	3-573-150-00	s	SPRING, COMPRESSION
134	3-650-312-00	s	BEARING, BALL (NO FLANGE)
135	3-667-309-00	s	SPRING, TENSION
136	3-701-437-21	s	WASHER
137	3-703-502-71	s	SCREW
138	3-722-325-02	o	BOSS, ARM BEARING
139	3-722-344-01	s	GEAR, JOINT
140	3-722-354-01	o	RUBBER, BRAKE
141	3-722-357-01	s	LEVER (A), REC, MISTAKE
142	3-722-360-01	s	LEVER (B), REC, MISTAKE
143	3-722-363-01	s	LEVER, METAL DETECTION
144	3-722-367-01	o	HOLDER, DETECTION PIN
145	3-722-368-01	o	PIN, CASSETTE DETECTION
146	3-722-458-03	o	LINK (A), JOINT GEAR
147	3-723-007-01	s	ROLLER, LS
148	3-723-011-03	s	HOLDER (RIGHT), SLIDE PIN
149	3-723-012-01	s	HOLDER (LEFT), SLIDE PIN
150	3-729-011-01	s	SPRING, COMPRESSION
151	3-729-013-21	s	SCREW(M1.4X2.5),WASHERHEAD(+P)
152	3-729-026-04	o	FLANGE (B), LOWER
153	3-729-079-05	s	FLANGE,UPPER,TENSION REGULATOR
154	4-879-762-00	s	SPRING, COMPRESSION
155	3-200-799-01	s	TUBE, VIBRATION PROOF

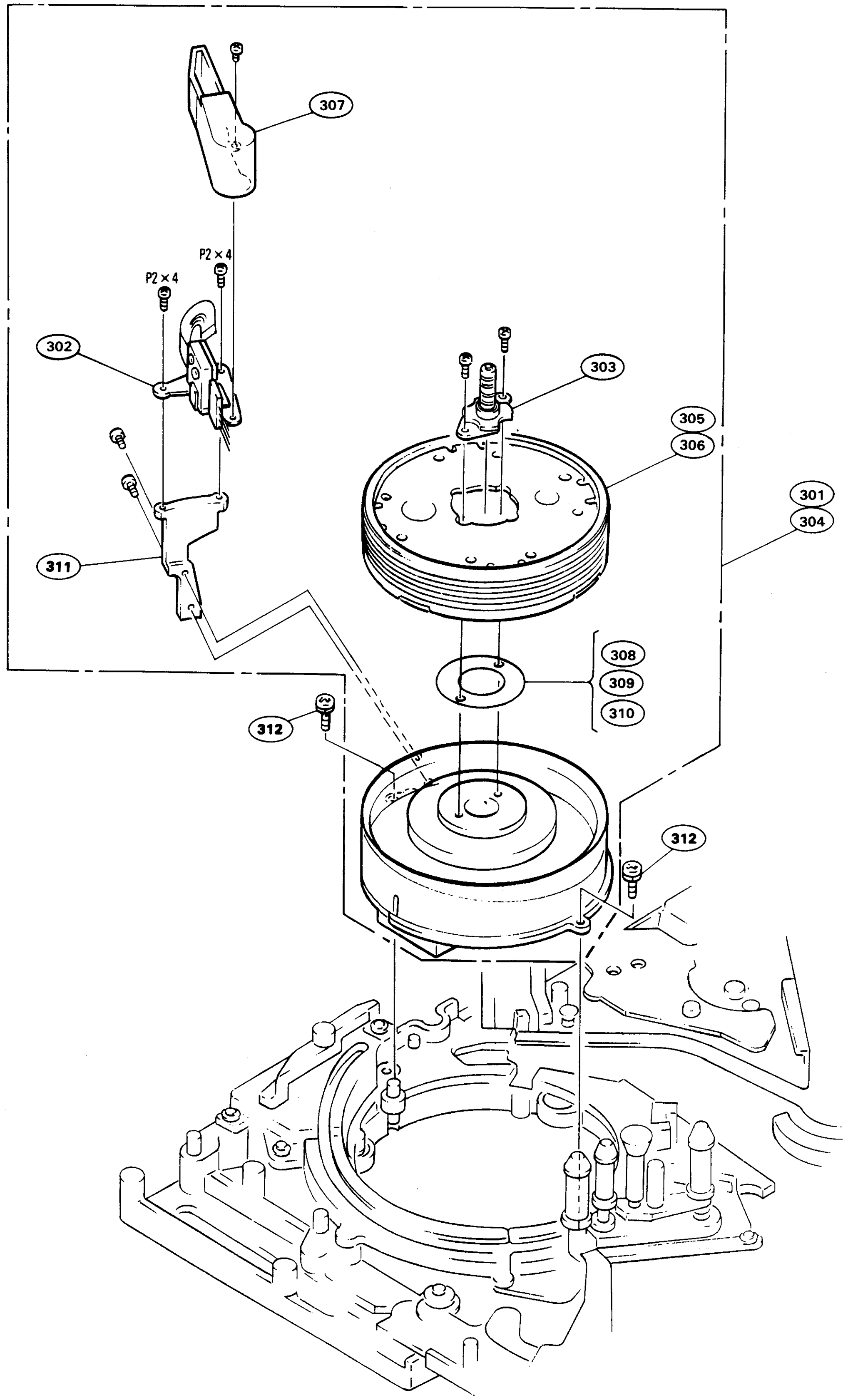
SLANT

No.	Part No.	SP	Description
201	X-3722-313-8	s	BASE ASSY, S
202	X-3722-314-3	s	BASE ASSY, S SUB
203	X-3722-315-2	s	IR-2 ASSY
204	X-3722-319-1	s	ROLLER ASSY
205	X-3167-773-3	s	BASE ASSY (RP), T Serial No. UP TO 10190 (UC) UP TO 30245 (J) UP TO 40410 (EK)
	X-3722-355-7	s	BASE ASSY, T Serial No. 10191 AND HIGHER(UC) 30246 AND HIGHER(J) 40411 AND HIGHER(EK)
206	X-3722-382-1	o	PULL ASSY, S
207	X-3722-383-2	o	LINK ASSY, T SUB FIXED
208	X-3722-384-3	o	LINK ASSY, T SUB ROTARY
209	X-3722-385-5	s	BASE ASSY, T SUB
210	X-3722-386-2	o	PLATE ASSY, PULL, T
211	X-3722-388-5	o	RING (T) ASSY, LOATING
212	X-3722-389-3	o	RING (S) ASSY, LOATING
213	X-3722-390-2	o	TABLE ASSY, ROTARY, T SUB
214	X-3722-409-1	o	SHAFT ASSY, MAIN, T SUB ROTARY
215	3-321-813-01	s	WASHER, COTTER POLYETHYLENE
216	3-557-565-00	s	WASHER, 1.4 DAI, SMALL
217	3-559-408-11	s	WASHER, POLYETHYLENE, DIA.1.2
218	3-657-842-01	s	SPACER (3X4)
219	3-669-481-02	s	PIN (DIA. 1), PARALLEL
220	3-695-567-01	s	WASHER, M SLIDER
221	3-701-436-01	s	WASHER, 1.6
222	3-722-400-02	s	FLANGE (C), UPPER
223	3-722-401-02	s	FLANGE (A), LOWER
224	3-722-402-02	o	NUT, IR
225	3-724-770-01	o	SPRING
226	3-724-772-02	o	ARM, T,S FIXED
227	3-724-775-02	o	PLATE, OPEN, S
228	3-724-788-01	s	SPRING, COMPRESSION
229	3-724-789-02	s	SPRING
230	3-724-792-02	o	REINFORCEMENT, GEAR
231	3-724-793-02	s	FLANGE (A), ROLLER
232	3-724-794-01	s	FLANGE (B), ROLLER
233	3-724-799-01	s	FLANGE, RING
234	3-725-201-01	s	ROLLER, RING
235	3-725-202-02	o	ROLLER, SUB
236	3-725-203-01	o	GEAR, S DRIVING MIDWAY
237	3-725-204-01	o	GEAR, S DRIVING
238	3-725-205-01	o	PLATE, ADJUSTMENT, T SUB
239	3-725-214-02	s	RAIL (O), S
240	3-725-215-02	s	RAIL (I), S
241	3-725-217-04	s	RAIL (O), T
242	3-725-218-02	s	RAIL (I), T
243	3-729-011-01	s	SPRING, COMPRESSION
244	3-729-013-21	s	SCREW(M1.4X2.5),WASHERHEAD(+P)
245	3-729-020-01	o	PLATE, FIXED, T SUB
246	3-729-040-01	o	PLATE, INDUCTION, T Serial No. UP TO 10190 (UC) UP TO 30245 (J) UP TO 40410 (EK)
247	3-729-041-01	o	SPRING Serial No. UP TO 10190 (UC) UP TO 30245 (J) UP TO 40410 (EK)
248	3-729-042-01	o	PLATE, INDUCTION, S Serial No. UP TO 10190 (UC) UP TO 30245 (J) UP TO 40410 (EK)
249	3-729-043-01	o	SPRING Serial No. UP TO 10190 (UC) UP TO 30245 (J) UP TO 40410 (EK)
250	3-729-073-01	s	GUIDE, TENTION Serial No. UP TO 10190 (UC) UP TO 30245 (J) UP TO 40410 (EK)
251	4-879-762-00	s	SPRING, COMPRESSION
252	3-179-393-01	s	RETAINER, GUIDE Serial No. 10191 AND HIGHER(UC) 30246 AND HIGHER(J) 40411 AND HIGHER(EK)
253	3-179-394-01	s	GUIDE, H Serial No. 10191 AND HIGHER(UC) 30246 AND HIGHER(J) 40411 AND HIGHER(EK)
254	A-8274-742-E	o	SLANT ASSY (RP)
255	3-191-456-01	s	FLANGE (EXIT), LOWER

SLANT


10191 AND HIGHER (UC)
30246 AND HIGHER (J)
40411 AND HIGHER (EK)
Serial No. UP TO 10190 (UC)
UP TO 30245 (J)
UP TO 40410 (EK)
SET SCREW, HEXAGON 2 × 2.5 (FLAT POINT)

DRUM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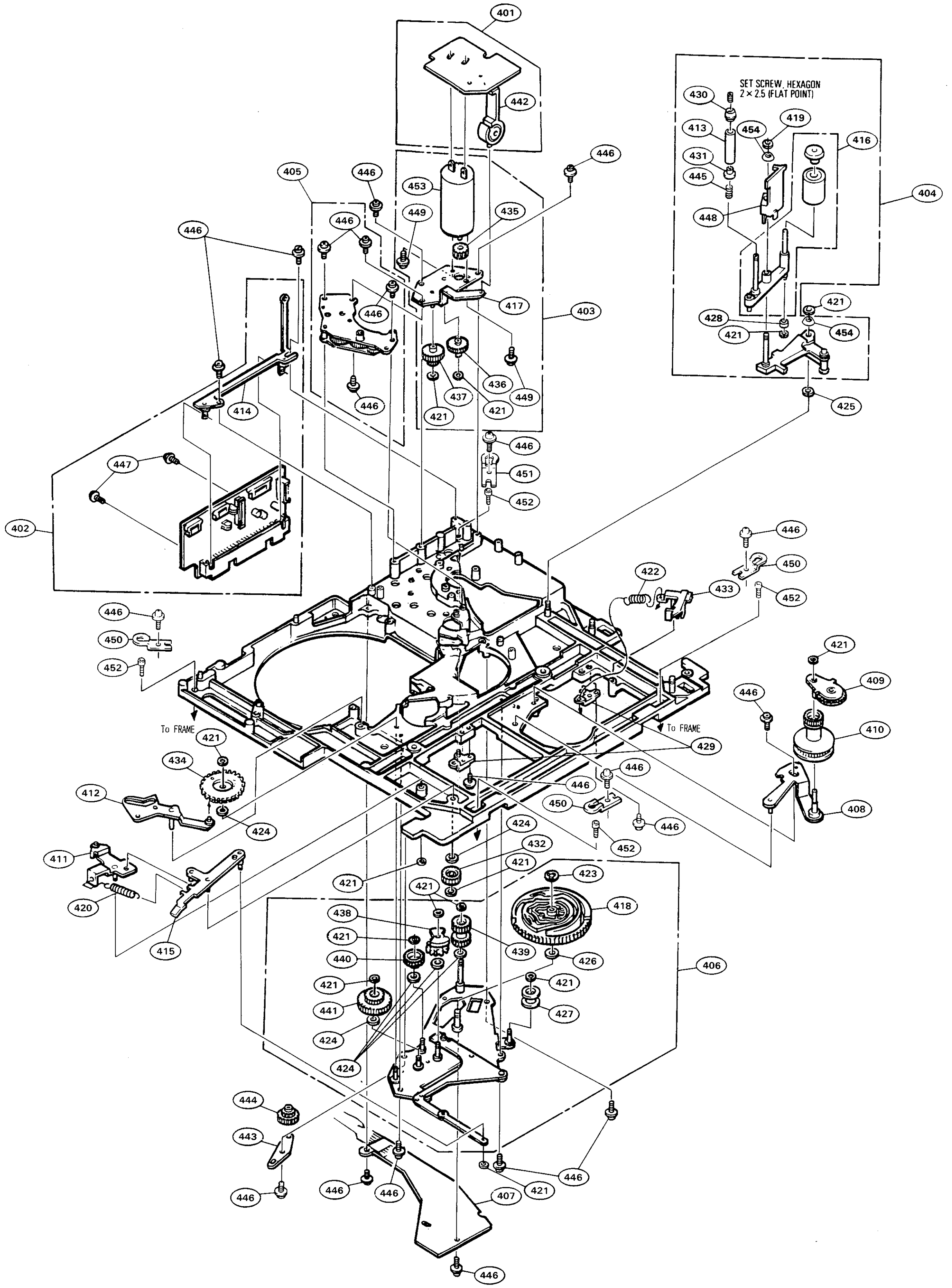
DRUM

No.	Part No.	SP	Description
301	A-6050-611-C	s	HEAD DRUM ASSY DBH-14AB-R (EK)
302	A-6050-648-A	s	BRUSH ASSY
303	A-6050-652-A	s	SLIP RING ASSY
304	A-6050-673-C	s	HEAD DRUM ASSY DBH-15AB-R (J, UC)
305	A-6762-406-B	s	UPPER DRUM ASSY DBR-14A-R (EK)
306	A-6762-418-C	s	UPPER DRUM ASSY DBR-15AB-R (J, UC)
307	3-717-148-03	o	COVER, BRUSH
308	3-717-150-01	o	SPACER, FRANGE (0.01T)
309	3-717-150-11	o	SPACER, FRANGE (0.03T)
310	3-717-150-21	o	SPACER, FRANGE (0.05T)
311	3-717-178-03	o	SUPPORT, BRUSH
312	3-729-012-01	s	SCREW (M2X5)

LOADING GEAR/CAM GEAR

No.	Part No.	SP	Description
401	A-6725-602-A	o	MOUNTED CIRCUIT BOARD, LD-21
402	A-6725-604-A	o	MOUNTED CIRCUIT BOARD, TB-5
403	A-6737-190-C	s	MOTOR ASSY, LOADING
404	A-8269-081-A	s	ARM ASSY, PINCH
405	A-6750-231-B	s	GEAR BLOCK ASSY
406	A-6750-233-B	s	GEAR SUB ASSY, CAM
407	A-6754-072-A	o	MOUNTED CIRCUIT BOARD, SR-40
408	X-3722-304-1	o	BASE ASSY
409	X-3722-306-3	s	GEAR ASSY
410	X-3722-307-4	s	PULLEY ASSY, MIDWAY
411	X-3722-308-1	o	LEVER ASSY, RELEASE, ST
412	X-3722-316-1	o	ARM ASSY, DRIVING
413	X-3722-319-1	s	ROLLER ASSY
414	X-3722-343-1	o	HOLDER (40P) ASSY, CONNECTOR
415	X-3722-357-1	o	LINK ASSY, EJECT
416	X-3722-363-5	s	PINCH ASSY, SUB
417	X-3722-364-3	o	BRACKET ASSY, MOTOR
418	X-3722-369-2	s	CAM ASSY, FUNCTION
419	3-321-813-01	s	WASHER, COTTER POLYETHYLENE
420	3-531-794-00	s	SPRING, TENSION
421	3-559-408-11	s	WASHER, POLYETHYLENE, DIA.1.2
422	3-668-508-00	s	SPRING, TENSION
423	3-669-595-00	s	WASHER (2), STOPPER
424	3-701-436-11	s	WASHER, 1.6 POLYETHYLENE
425	3-701-438-01	s	WASHER
426	3-701-438-21	s	WASHER
427	3-722-369-01	s	PULLEY, IDLER
428	3-722-382-01	s	ROLLER, PINCH ARM
429	3-722-390-01	o	HOOK, SPRING, SHUTTER
430	3-722-400-02	s	FLANGE (C), UPPER
431	3-722-401-02	s	FLANGE (A), LOWER
432	3-722-430-01	o	GEAR, JOINT
433	3-722-460-01	o	SHUTTER, CASSETTE DETECTION
434	3-723-010-01	o	GEAR, REEL SLIDER DRIVING
435	3-723-062-01	s	GEAR (M0)
436	3-723-064-01	s	GEAR (M1)
437	3-723-065-01	s	GEAR (M2)
438	3-723-080-02	o	GEAR, CLUB
439	3-723-081-01	o	GEAR (T)
440	3-723-082-02	o	GEAR, T DRIVING MIDWAY
441	3-723-083-02	o	GEAR, ST DRIVING
442	3-723-091-01	o	HOLDER, TOP SENSOR
443	3-725-206-01	o	BRACKET, T GEAR
444	3-725-207-02	o	GEAR, T DRIVING
445	3-729-011-01	s	SPRING, COMPRESSION
446	3-729-013-21	s	SCREW(M1.4X2.5),WASHERHEAD(+P)
447	3-729-013-41	s	SCREW(M1.4X3.5),WASHERHEAD(+P)
448	3-729-046-03	o	GUARD, PINCH TAPE
449	3-729-076-01	s	SCREW (+B) (2X3)
450	3-729-081-01	o	RETAINER (A), SCREW
451	3-729-082-01	o	RETAINER (B), SCREW
452	3-729-084-21	s	BOLT (M2X5), HEXAGON HOLE
453	8-835-308-01	s	MOTOR, DC LN18-S1N1B
454	3-729-098-01	s	WASHER, SPRING

LOADING GEAR/CAM GEAR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SET SCREW, HEXAGON 2 × 2.5 (FLAT POINT)
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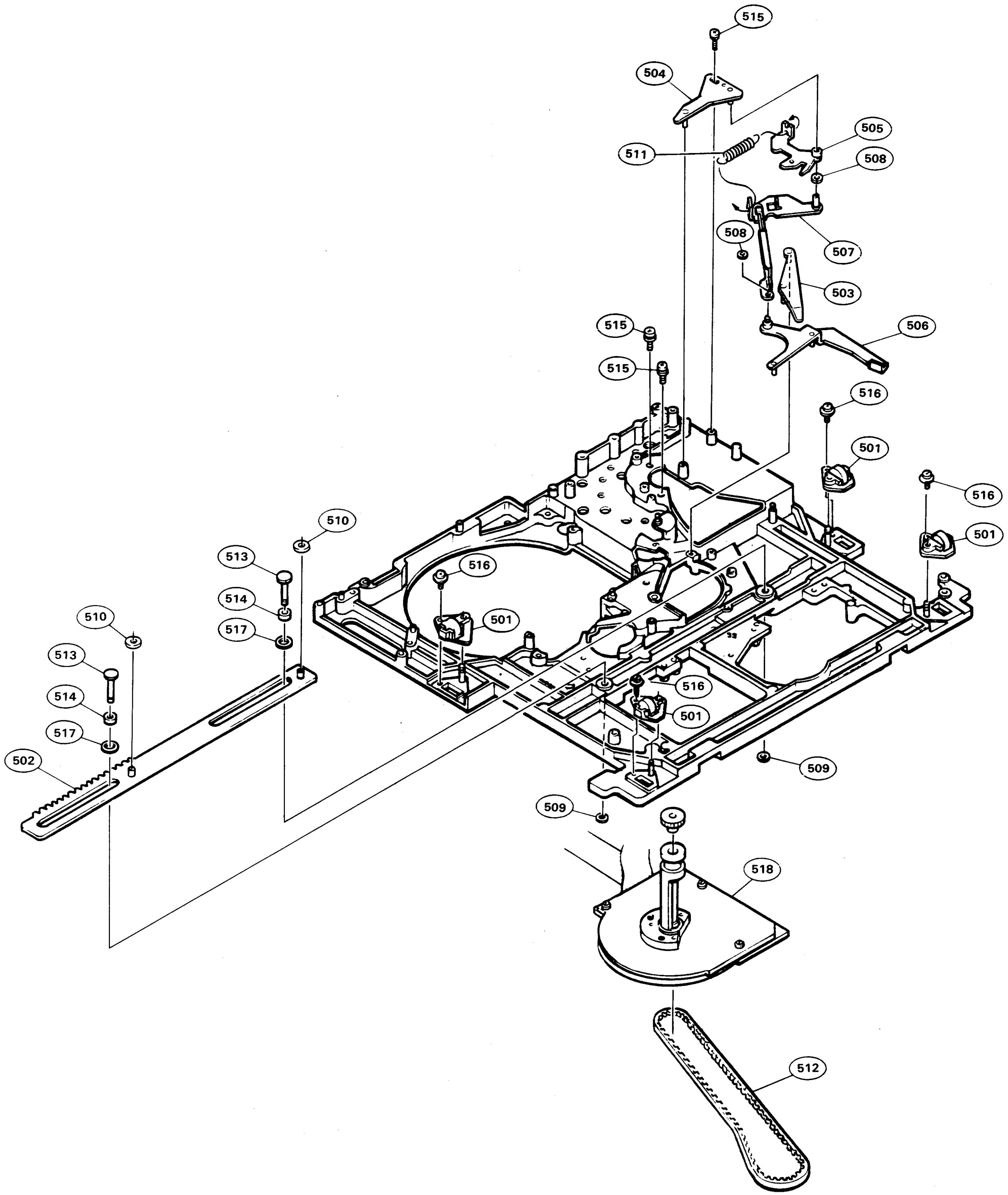
PINCH PRESS MECHANISM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PINCH PRESS MECHANISM

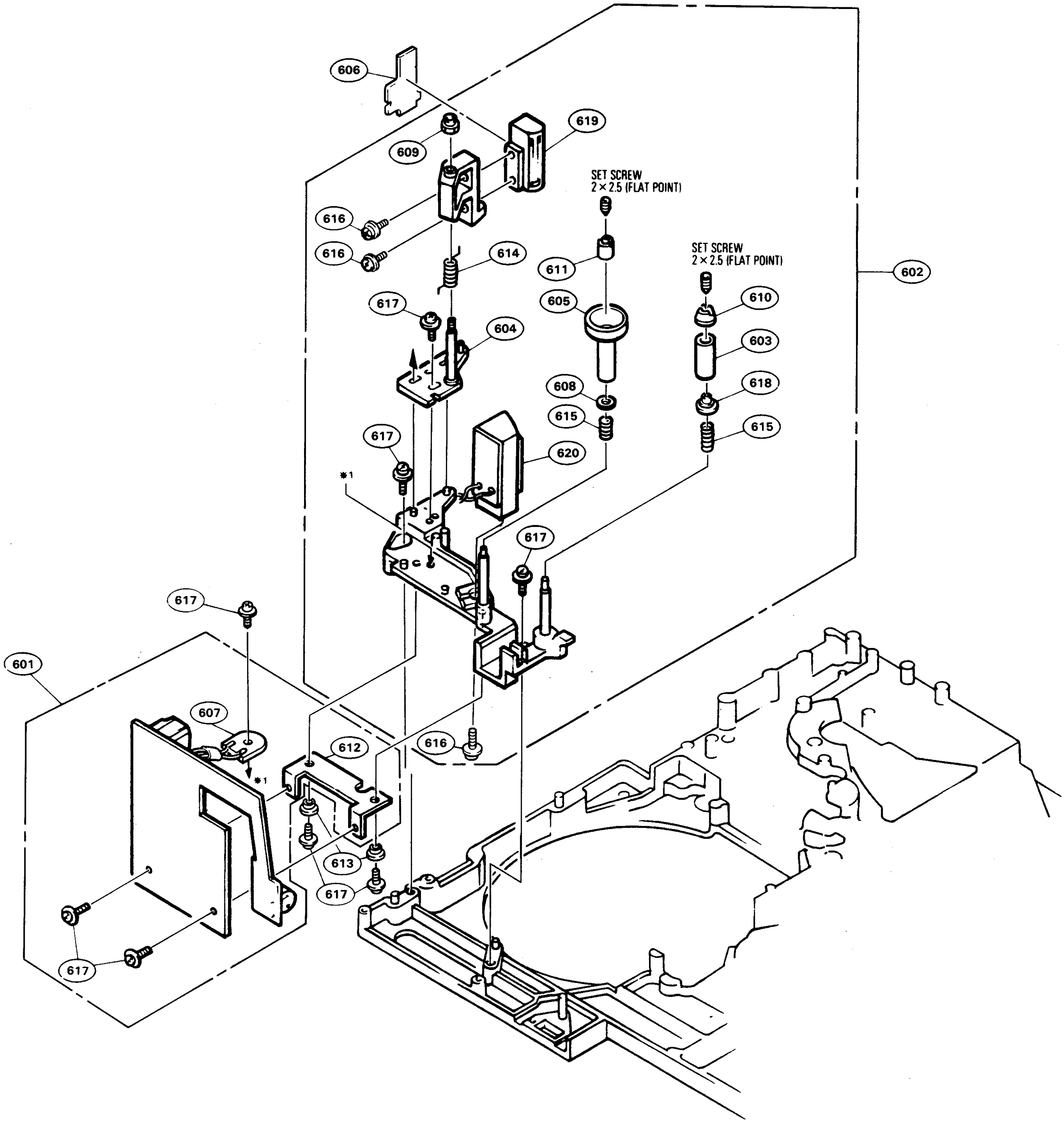
No.	Part No.	SP	Description
501	X-3722-301-1	s	ROLLER ASSY, REEL CHASSIS
502	X-3722-309-1	o	SLIDER ASSY, REEL
503	X-3722-310-3	o	LEVER ASSY, BRAKE
504	X-3722-311-1	o	SUPPORT ASSY, P LEVER
505	X-3722-312-1	o	LEVER (C) ASSY, PRESS
506	X-3722-345-1	o	JOINT ASSY, PINCH
507	X-3722-346-2	o	LEVER ASSY, PRESS
508	3-559-408-00	s	POLY-WASHER, 1.2 DIA
509	3-559-408-11	s	WASHER, POLYETHYLENE, DIA.1.2
510	3-701-439-21	s	WASHER
511	3-701-788-XX	s	SPRING, TENSION, T18
512	3-722-452-01	s	BELT, TIMING
513	3-723-008-01	o	RETAINER, ROLLER
514	3-723-009-01	s	ROLLER, SLIDER PLATE
515	3-729-012-01	s	SCREW (M2X5)
516	3-729-013-21	s	SCREW(M1.4X2.5),WASHERHEAD(+P)
517	3-729-025-01	s	WASHER
518	A-8322-001-A	s	MOTOR ASSY (RP), CAPSTAN

CTL HEAD BASE

CTL HEAD BASE

No.	Part No.	SP	Description
601	A-6725-603-A	o	MOUNTED CIRCUIT BOARD, FE-4
602	A-6736-080-F	o	HEAD SUB ASSY, CTL
603	X-3722-322-1	s	ROLLER ASSY, POM
604	X-3722-341-1	o	PLATE ASSY, HEAD, CTL
605	X-3722-342-4	s	IR-1 ASSY
606	1-625-969-11	o	PRINTED CIRCUIT BOARD, DUS-246
607	1-806-682-71	s	SENSER, DEW CONDENSATION
608	3-557-565-00	s	WASHER, 1.4 DAI, SMALL
609	3-698-829-01	s	NUT (M2)
610	3-722-400-02	s	FLANGE (C), UPPER
611	3-722-402-02	o	NUT, IR
612	3-722-419-01	o	HOLDER, FE-4
613	3-722-420-01	s	SPACER, FE-4 HOLDER
614	3-723-092-02	s	SPRING
615	3-729-011-01	s	SPRING, COMPRESSION
616	3-729-012-31	s	SCREW (M2X6)
617	3-729-013-21	s	SCREW(M1.4X2.5),WASHERHEAD(+P)
618	3-742-003-01	s	FLANGE (S), LOWER
619	8-825-560-41	s	HEAD, CTL RS-253-21
620	8-825-772-61	s	HEAD, ERASE EF291-21A

CTL HEAD BASE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SET SCREW
2 × 2.5 (FLAT POINT)
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SET SCREW
2 × 2.5 (FLAT POINT)
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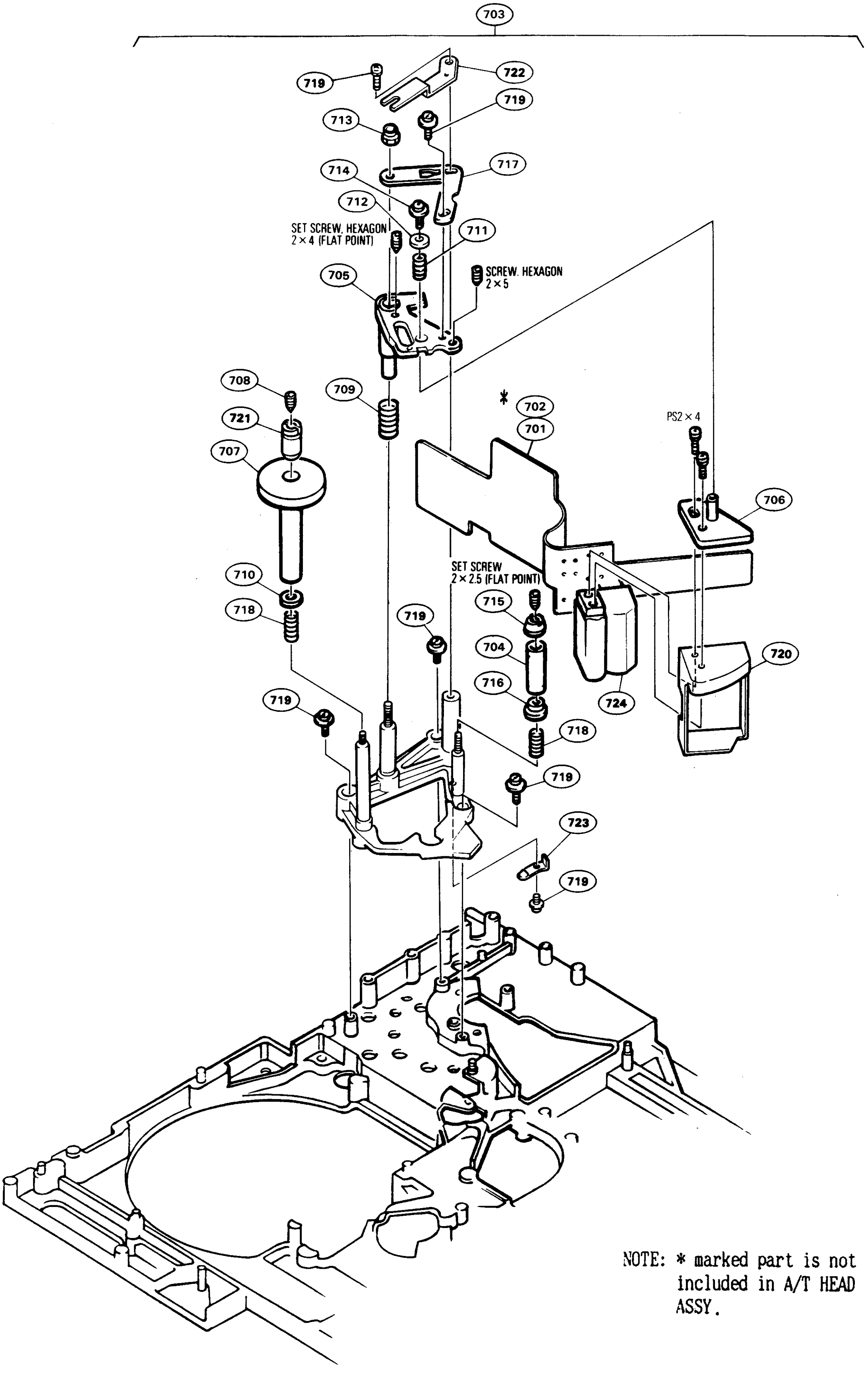
A/T HEAD BASE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SET SCREW, HEXAGON
2 × 4 (FLAT POINT)
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705
SCREW, HEXAGON
2×5
708
709
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702
701
PS2 × 4
721
707
706
SET SCREW
2 × 2.5 (FLAT POINT)
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NOTE: * marked part is not included in A/T HEAD ASSY.

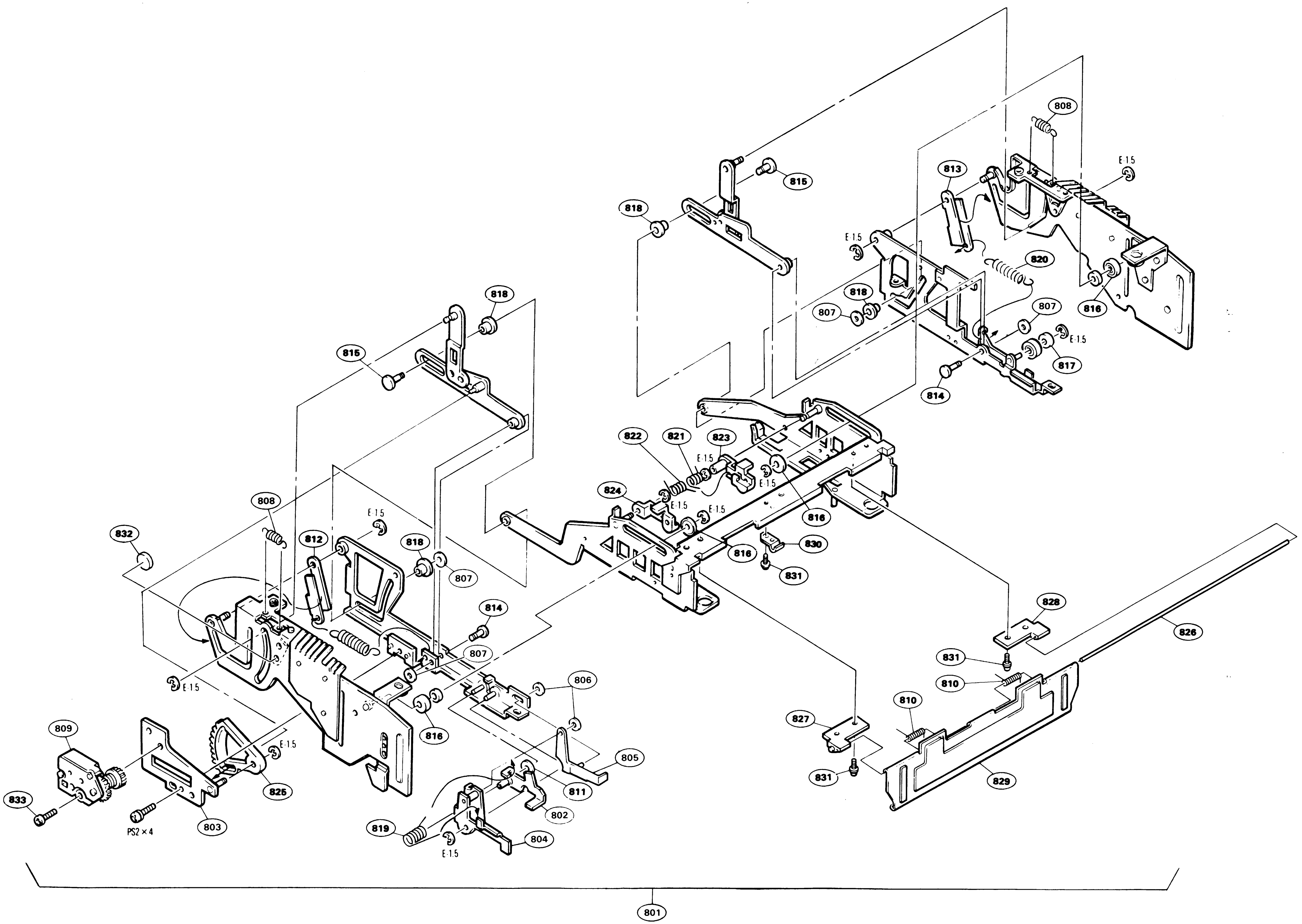
A/T HEAD BASE

No.	Part No.	SP	Description
701	A-6713-332-A	o	FLEXIBLE CARD WIRE, FL-55(J,UC)
702	A-6713-349-A	o	FLEXIBLE CARD WIRE, FL-55P(EK)
703	A-6736-078-A	o	HEAD ASSY, A/T (NOT INCLUDING FL-55/55P)
704	X-3722-319-1	s	ROLLER ASSY
705	X-3722-338-3	o	PLATE (UPPER) ASSY, A/T
706	X-3722-339-3	o	PLATE (LOWER) ASSY, A/T
707	X-3722-340-4	s	IR-3 ASSY
708	2-123-868-02	s	SCREW (2X6)
709	3-534-236-00	s	SPRING, COMPRESSION
710	3-557-565-00	s	WASHER, 1.4 DAI, SMALL
711	3-669-316-00	s	SPRING, COMPRESSION
712	3-695-567-01	s	WASHER, M SLIDER
713	3-698-829-01	s	NUT (M2)
714	3-703-502-31	s	SCREW
715	3-722-400-02	s	FLANGE (C), UPPER
716	3-722-401-02	s	FLANGE (A), LOWER
717	3-722-412-15	o	DAMPER, A/T
718	3-729-011-01	s	SPRING, COMPRESSION
719	3-729-013-21	s	SCREW(M1.4X2.5),WASHERHEAD(+P)
720	3-729-027-11	o	CASE, SHIELD, A/T
721	3-729-066-01	o	NUT, IR-3
722	3-729-067-02	o	PLATE, INDICATION, IR-3
723	3-742-002-01	o	DAMPER, W & F
724	8-825-749-02	s	HEAD, AU PPS244-2103

CASSETTE-UP COMPARTMENT

No.	Part No.	SP	Description
801	A-7408-093-D	s	CASSETTE COMPARTMENT ASSY
802	X-3722-358-3	s	STOPPER ASSY
803	X-3722-361-2	o	FITTING ASSY, DAMPER
804	X-3722-381-4	s	ARM ASSY, LOCK
805	X-3722-412-1	o	LEVER ASSY, RELEASE
806	3-315-384-11	s	WASHER, STOPPER
807	3-321-813-01	s	WASHER, COTTER POLYETHYLENE
808	3-674-402-00	s	SPRING, TENSION
809	3-681-528-00	o	DAMPER
810	3-695-515-02	o	SPRING
811	3-701-436-21	s	WASHER, POLYEHTHYLENE
812	3-723-016-01	o	LEVER (RIGHT), LID OPEN
813	3-723-017-01	o	LEVER (LEFT), LID OPEN
814	3-723-042-01	o	SHAFT, LINK
815	3-723-043-01	o	SHAFT, CASSETTE HOLDER
816	3-723-044-01	o	RETAINER, BEARING
817	3-723-044-11	o	RETAINER, BEARING
818	3-723-045-02	o	ROLLER, HOLDER SLIDE
819	3-723-052-01	s	SPRING (A), TORSION
820	3-723-053-01	o	SPRING (A), TENSION
821	3-723-054-01	o	SPRING (L), CASSETTE RETAINER
822	3-723-055-01	o	SPRING (R), CASSETTE RETAINER
823	3-723-067-03	o	RETAINER (LEFT), CASSETTE
824	3-723-068-01	o	RETAINER (RIGHT), CASSETTE
825	3-723-086-01	o	GEAR, DAMPER DRIVING
826	3-723-087-01	s	SHAFT (A), BLIND PLATE
827	3-723-088-02	s	GUIDE (RIGHT), CASSETTE
828	3-723-089-02	s	GUIDE (LEFT), CASSETTE
829	3-723-090-03	s	PLATE (A), BLIND
830	3-725-298-01	o	PLATE, INDICATION, BLIND
831	3-729-013-21	s	SCREW(M1.4X2.5),WASHERHEAD(+P)
832	3-200-800-01	s	SHEET,MUFFLE
833	3-203-203-01	s	SCREW(2X7),DAMPER(+PSW)

CASSETTE-UP COMPARTMENT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PS2 × 4
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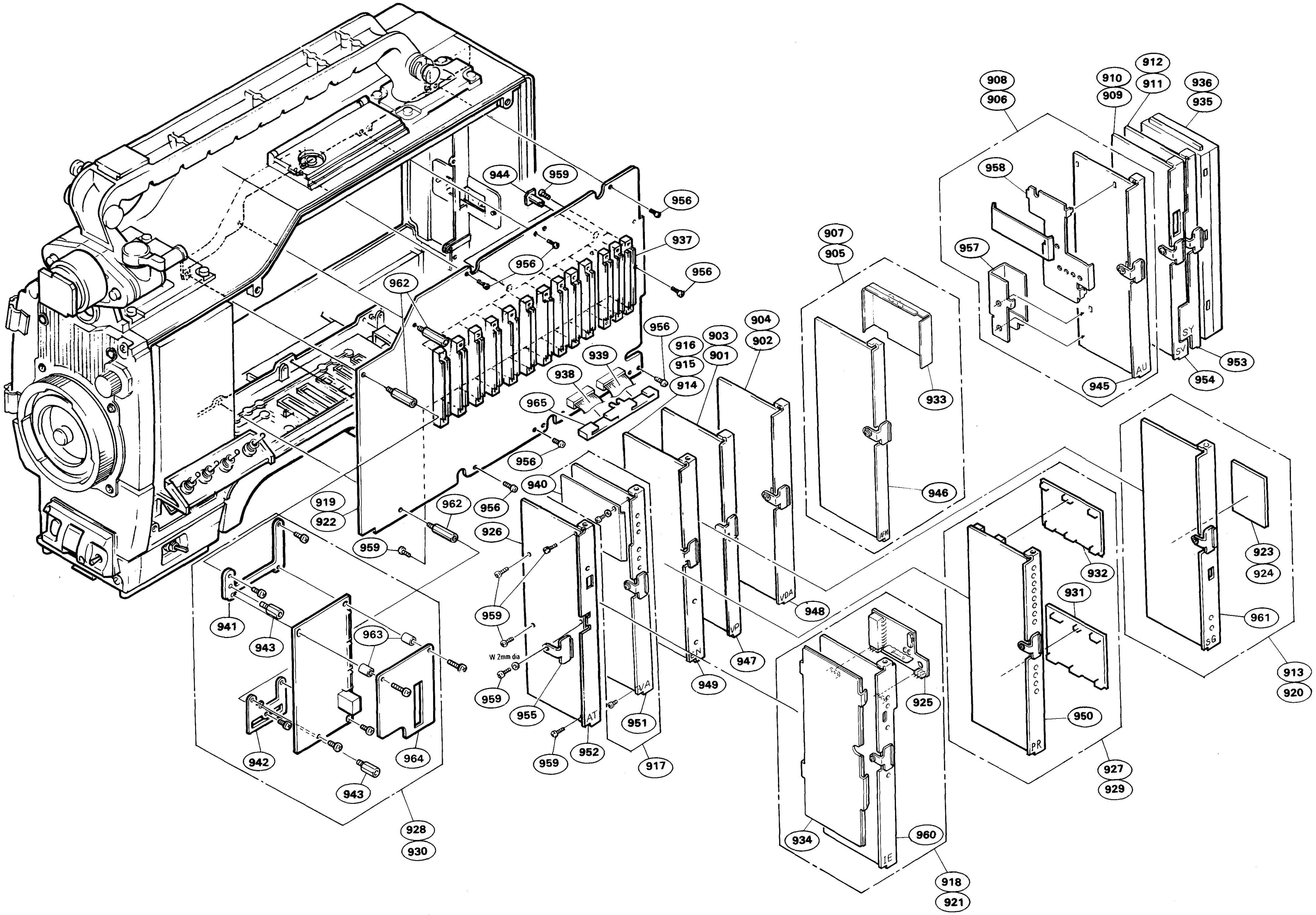
PRINT CIRCUIT BOARD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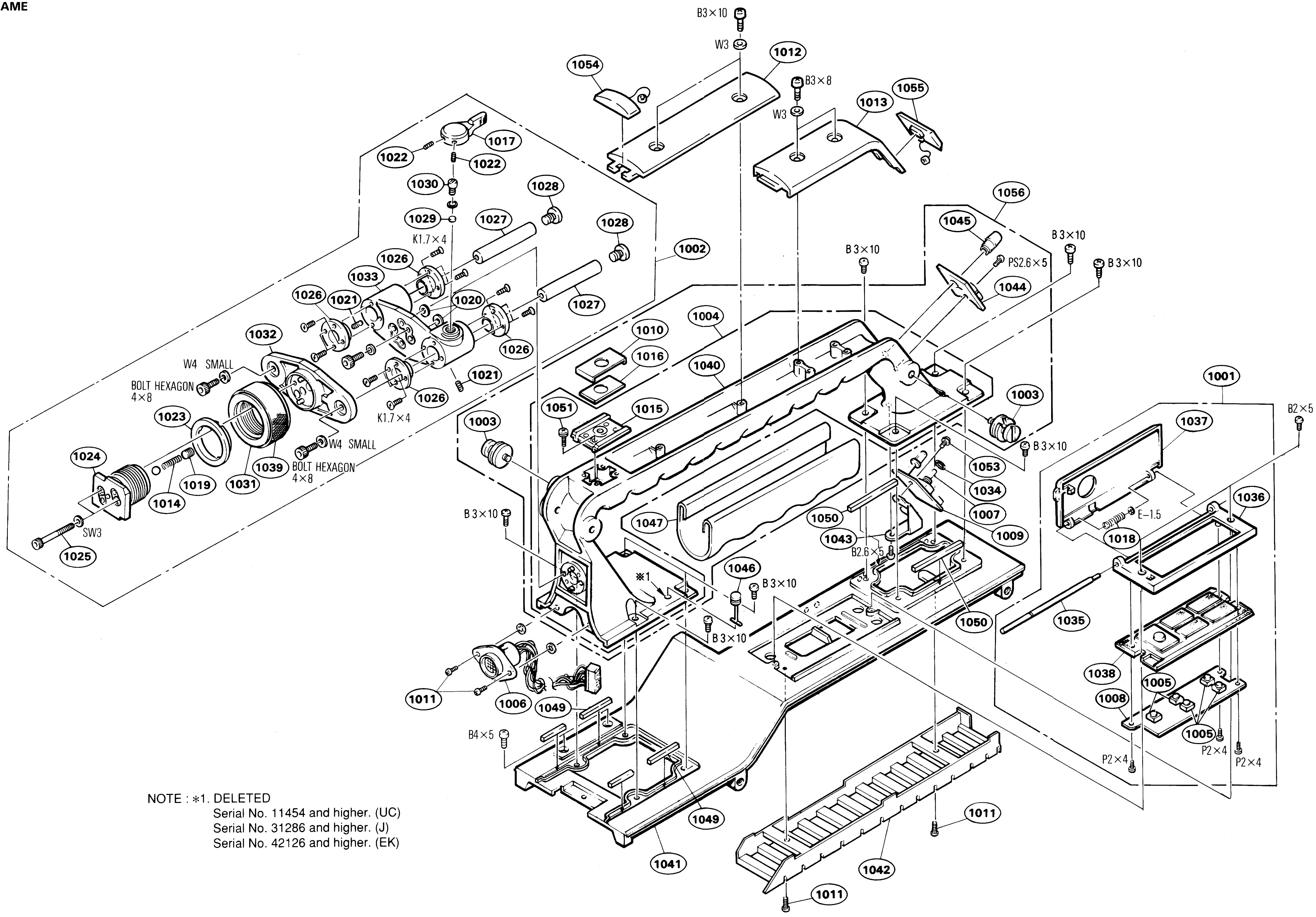
PRINT CURCUIT BOARD

No.	Part No.	SP	Description
901	A-6711-932-B	o	MOUNTED CIRCUIT BOARD, VP-24 (J,UC)
902	A-6711-933-C	o	MOUNTED CIRCUIT BOARD, VDA-11(J,UC)
903	A-6711-992-A	o	MOUNTED CIRCUIT BOARD, VP-24P (EK)
904	A-6711-993-B	o	MOUNTED CIRCUIT BOARD, VDA-11P (EK)
905	A-6713-319-B	o	MOUNTED CIRCUIT BOARD, AFM-6 (J,UC)
906	A-6713-320-A	o	MOUNTED CIRCUIT BOARD, AU-97 (J,UC)
907	A-6713-350-A	o	MOUNTED CIRCUIT BOARD, AFM-6P (EK)
908	A-6713-351-A	o	MOUNTED CIRCUIT BOARD, AU-97P (EK)
909	A-6715-436-A	o	MOUNTED CIRCUIT BOARD, SV-97A(J,UC)
910	A-6715-438-A	o	MOUNTED CIRCUIT BOARD, SV-97AP (EK)
911	A-6717-576-A	o	MOUNTED CIRCUIT BOARD, SY-117C(J,UC) VTR
912	A-6717-577-A	o	MOUNTED CIRCUIT BOARD, SY-117CP(EK)
913	A-8271-759-A	o	MOUNTED CIRCUIT BOARD, SG-152B(J,UC)
914	A-7513-949-A	o	MOUNTED CIRCUIT BOARD, EN-79U (UC) CAM
915	A-7513-950-A	o	MOUNTED CIRCUIT BOARD, EN-79 (J)
916	A-7513-961-A	o	MOUNTED CIRCUIT BOARD, EN-79P (EK)
917	A-7515-147-B	o	MOUNTED CIRCUIT BOARD, VA-104
918	A-7515-150-A	o	MOUNTED CIRCUIT BOARD, IE-30 (J,UC)
919	A-7515-151-A	o	MOUNTED CIRCUIT BOARD, MB-317(J,UC)
920	A-8271-781-A	o	MOUNTED CIRCUIT BOARD, SG-152BP(EK)
921	A-7515-156-A	o	MOUNTED CIRCUIT BOARD, IE-30P(EK)
922	A-7515-157-A	o	MOUNTED CIRCUIT BOARD, MB-317P (EK)
923	A-7520-420-A	o	MOUNTED CIRCUIT BOARD, SG-157(J,UC)
924	A-7520-489-A	o	MOUNTED CIRCUIT BOARD, SG-157P (EK)
925	A-7520-521-A	o	MOUNTED CIRCUIT BOARD, IE-31
926	A-8271-329-B	o	MOUNTED CIRCUIT BOARD, AT-49B
927	A-8271-330-A	o	MOUNTED CIRCUIT BOARD, PR-176U (UC)
928	A-8271-331-A	o	MOUNTED CIRCUIT BOARD, IF-298A(UC,EK)
929	A-8271-333-A	o	MOUNTED CIRCUIT BOARD, PR-176(J,EK)
930	A-8271-334-A	o	MOUNTED CIRCUIT BOARD, IF-298AJ (J)
931	1-810-067-11	s	BP-020
932	1-810-066-11	s	BP-021
933	X-3166-340-2	s	PLATE (AFM) ASSY, SHIELD
934	X-3722-411-5	o	PLATE (CARD) ASSY, SHIELD
935	1-464-995-21	s	CONVERTRER, DC-DC(CD-89B)(J,UC)
936	1-464-995-41	s	CONVERTER, DC-DC (CD-89)(EK)
937	1-566-962-11	o	CONNECTOR, BOARD TO BOARD, 50P
938	1-625-891-11	s	FLEXIBLE CARD WIRE, FL-45
939	1-625-892-11	s	FLEXIBLE CARD WIRE, FL-46
940	3-172-056-02	o	PARTITION
941	3-176-007-01	o	BRACKET (A), IF
942	3-176-008-01	o	BRACKET (B), IF
943	3-176-009-01	o	SUPPORT (TG)
944	3-722-391-01	o	HOLDER, GP2S09
945	3-724-704-01	o	PLATE (AU-97), ORNAMENTAL
946	3-724-705-01	o	PLATE (AFM-6), ORNAMENTAL
947	3-724-706-01	o	PLATE (VP-24), ORNAMENTAL
948	3-724-707-01	o	PLATE (VDA-11), ORNAMENTAL
949	3-724-709-01	o	PLATE (EN-62), ORNAMENTAL
950	3-724-710-01	o	PLATE (PR-102), ORNAMENTAL
951	3-724-711-02	o	PLATE (VA-62), ORNAMENTAL
952	3-724-713-01	o	PLATE (AT-49), ORNAMENTAL
953	3-724-714-01	o	PLATE (SY-117), ORNAMENTAL
954	3-724-715-01	o	PLATE (SV-97), ORNAMENTAL
955	3-724-753-01	o	RING
956	3-729-013-21	s	SCREW(M1.4X2.5),WASHERHEAD(+P)
957	3-729-031-01	o	CASE(AU-1), SHEILD
958	3-729-032-03	o	CASE(AU-2), SHEILD
959	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
960	3-734-712-02	o	PLATE (IE-20), ORNAMENTAL
961	3-734-721-01	o	PLATE (SG-152), ORNAMENTAL
962	3-742-031-01	o	SUPPORT (IF)
963	3-742-072-01	o	SPACER (IF)
964	3-742-073-11	o	COVER, IF
965	3-190-329-01	s	SPACER, FL

TOP FRAME

No.	Part No.	SP	Description
1001	A-6731-155-A	s	KEY BOARD ASSY
1002	A-7612-331-F	o	SLIDE ASSY, VF
1003	X-3672-208-2	o	SUSPENSION ASSY (B)
1004	X-3722-370-9	o	HANDLE ASSY
1005	1-554-371-51	s	SWITCH, TACT
1006	1-565-051-11	o	CONNECTOR, ROUND (WITH C) 20P "VF"
1007	1-570-608-11	s	SWITCH, TOGGLE "BACK TALLY"
1008	1-625-549-11	o	PRINTED CIRCUIT BOARD, KY-124
1009	1-625-555-11	o	PRINTED CIRCUIT BOARD, SW-291
1010	2-277-468-01	o	PLATE, ORNAMENTAL, CAMERA SHOE
1011	3-166-603-01	s	SCREW (2.6), +B
1012	3-176-499-01	o	COVER (A), HANDLE
1013	3-176-500-01	o	COVER (B), HANDLE
1014	3-641-622-00	s	SPRING, COMPRESSION
1015	3-657-700-00	s	BRACKET, ACCESSORY
1016	3-672-213-00	o	SHEET, ADHESIVE
1017	3-673-046-00	s	LEVER, LOCK
1018	3-673-281-00	o	SPRING, COMPRESSION
1019	3-682-760-01	o	SCREW (M7-0.75), ADJUSTMENT
1020	3-685-166-02	o	WASHER, SCREW CLAMP
1021	3-701-506-01	s	SET SCREW, DOUBLE POINT 3X4
1022	3-701-508-00	s	SET SCREW, DOUBLE POINT 3X6
1023	3-710-018-01	s	COLLAR, SLIDE
1024	3-710-039-03	s	SHOE, SLIDE
1025	3-711-765-01	s	BOLT (M3), HEXAGON SOCKET
1026	3-711-790-01	o	SPACER (A)
1027	3-711-791-01	o	ARM
1028	3-711-792-01	o	SCREW
1029	3-711-793-01	o	CUSHION (STOPPER)
1030	3-711-794-03	o	PIN, STOPPER
1031	3-711-795-01	o	RING (B), LOCK
1032	3-711-796-03	o	TABEL, FIXED, VF SHOE
1033	3-711-797-07	o	TABEL, FIXED, VF SLIDE
1034	3-717-825-01	o	RING, O
1035	3-717-854-01	o	SHAFT, KEY BOARD COVER
1036	3-718-042-21	o	FRAME, KEY BOARD
1037	3-718-043-23	o	COVER, KEY BOARD
1038	3-718-044-01	s	COVER, KEY BOARD RUBBER
1039	3-720-919-01	o	RUBBER, LOCK RING
1040	3-722-467-21	o	HANDLE
1041	3-722-469-09	o	FRAME, TOP
1042	3-724-736-01	o	GUIDE (UPPER), PC BOARD
1043	3-724-762-01	s	HOLDER
1044	3-724-763-01	o	COVER, BT
1045	3-724-764-01	s	HOLDER, LED
1046	3-725-234-01	s	RUBBER (DIA.7), DROP PROTECTION Serial No. UP TO 11453 (UC) Serial No. UP TO 31285 (J) Serial No. UP TO 42125 (EK)
1047	3-725-260-05	s	GRIP, RUBBER
1048	3-725-295-01	s	SCREW, (+) (B3)
1049	3-725-296-11	s	FILTER (HANDLE)
1050	3-725-296-21	s	FILTER (HANDLE)
1051	3-729-012-01	s	SCREW (M2X5)
1053	3-729-013-21	s	SCREW(M1.4X2.5), WASHERHEAD(+P)
1054	3-177-363-01	o	LID (A), COVER
1055	3-177-364-01	o	LID (B), COVER
1056	A-8313-181-B	o	HANDLE ASSY (N)

TOP FRAME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W4 SMALL
BOLT HEXAGON 4×8
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W4 SMALL
BOLT HEXAGON 4×8
SW3
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B3×10
B3×10
PS2.6×5
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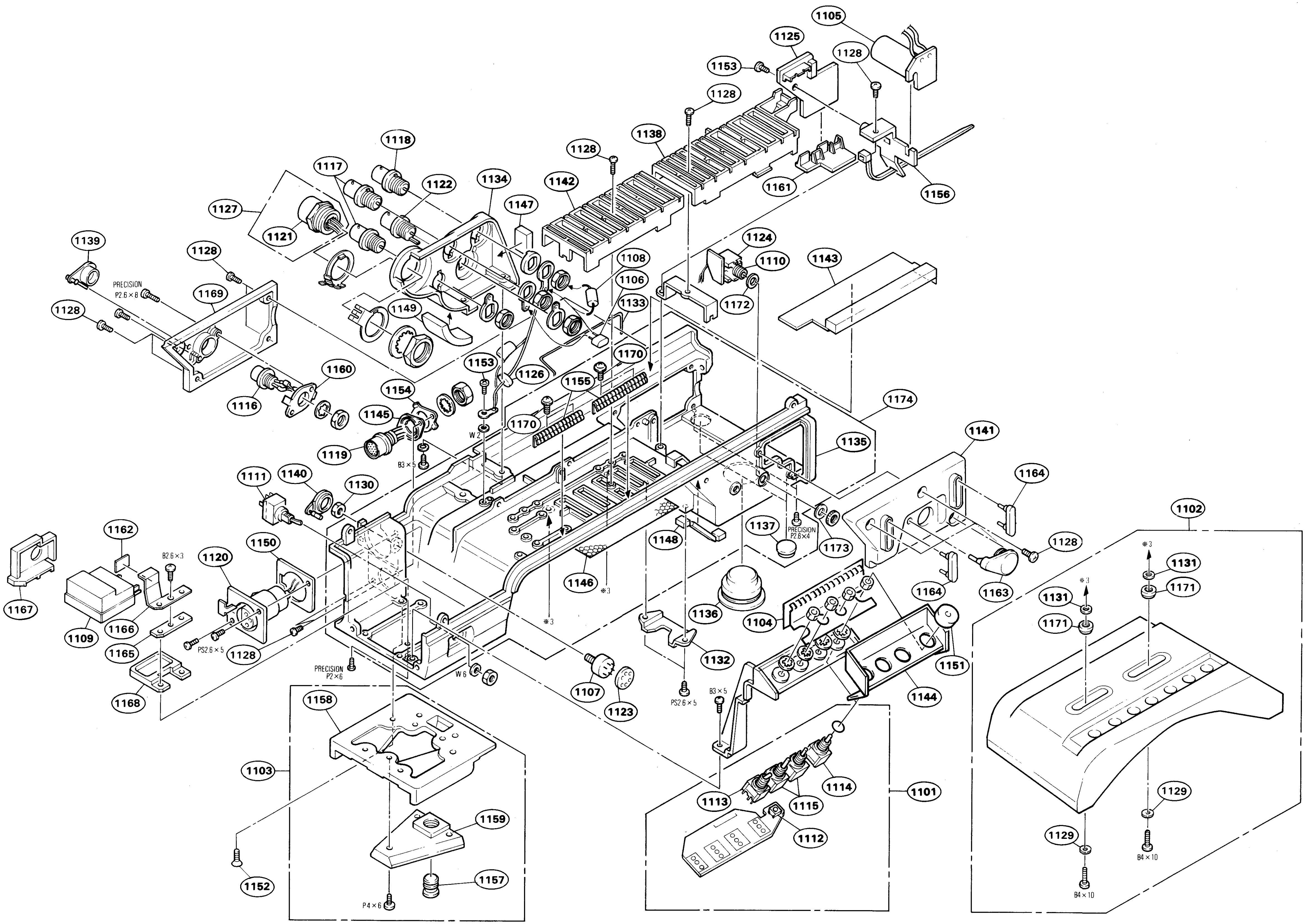
NOTE : ※1. DELETED
Serial No. 11454 and higher. (UC)
Serial No. 31286 and higher. (J)
Serial No. 42126 and higher. (EK)

BOTTOM FRAME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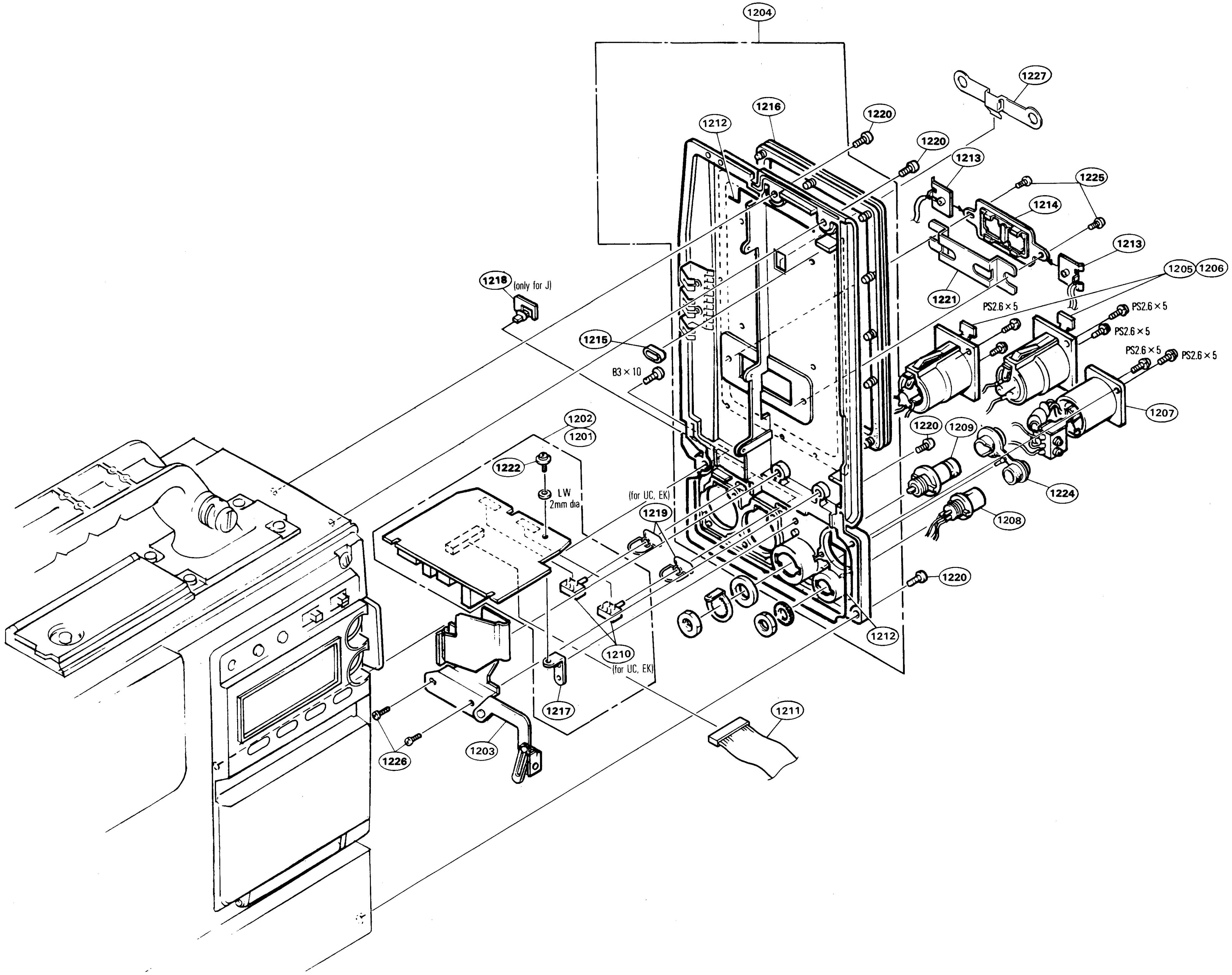
BOTTOM FRAME

No.	Part No.	SP	Description
1101	A-7520-307-A	o	MOUNTED CIRCUIT BOARD, SW-220
1102	A-7612-315-A	s	PAD ASSY, SHOULDER
1103	A-7612-385-D	s	SHOE (B) ASSY, V
1104	X-3166-761-1	o	FINGER (SW) ASSY, SHIELD
1105	1-124-440-11	s	CAP, ELECT 3300MF
1106	1-162-710-11	s	CAP, CERAMIC 100PF A
1107	1-223-165-00	s	RES, ADJ, WIREWOUND 10K
1108	1-249-404-00	s	RES, CARBON (SMALL) 82
1109	1-466-158-13	s	CONVERTER UNIT, DC-DC
1110	1-507-980-21	s	JACK
1111	1-553-448-00	s	SWITCH, TOGGLE
1112	1-553-856-00	s	SWITCH, KEYBOARD
1113	1-554-355-00	s	SWITCH, TOGGLE
1114	1-554-356-00	s	SWITCH, TOGGLE
1115	1-554-400-00	s	SWITCH, TOGGLE
1116	1-561-233-21	s	CONNECTOR (RECEPTACLE) 6P
1117	1-561-781-11	s	CONNECTOR, BNC (RECEPTACLE)
1118	1-561-781-21	s	CONNECTOR, BNC (RECEPTACLE)
1119	1-562-221-21	s	RECEPTACLE, CONNECTOR 12P
1120	1-563-029-21	s	CONNECTOR (RECEPTACLE) 3P
1121	1-563-971-11	s	CONNECTOR (R-F) 20P
1122	1-565-764-11	s	CONNECTOR ASSY, BNC
1123	1-625-554-13	o	PRINTED CIRCUIT BOARD, VR-77
1124	1-627-593-11	o	PRINTED CIRCUIT BOARD, HP-43
1125	1-634-967-11	o	PRINTED CIRCUIT BOARD, CN-400
1126	1-806-504-11	s	VARISTOR ERZ-C05DK820
1127	1-940-619-11	o	HARNESS, SUB (ADP)
1128	3-166-603-01	s	SCREW (2.6), +B
1129	3-646-184-00	s	SPACER
1130	3-664-519-00	o	NUT (M4)
1131	3-687-116-01	o	WASHER (4), STOPPER
1132	3-711-703-01	o	STOPPER
1133	3-711-715-01	o	RUBBER, SHIELD
1134	3-722-462-03	o	FRAME, BNC
1135	3-722-471-08	o	FRAME, BOTTOM
1136	3-723-096-01	o	OVER, BREAKER
1137	3-723-097-01	o	FOOT, RUBBER
1138	3-724-720-01	o	GUIDE (LOWER REAR), PC BOARD
1139	3-724-730-02	s	RUBBER (EA), DROP PROTECTION
1140	3-724-731-02	s	RUBBER (PE), DROP PROTECTION
1141	3-724-734-04	o	PANEL, MAIN.SWITCH ORNAMENTAL
1142	3-724-735-01	o	GUIDE (LOWER FRONT), PC BOARD
1143	3-725-226-01	o	PARTITION (L)
1144	3-725-243-01	s	RUBBER (CAM), DROP PROTECTION
1145	3-725-297-01	o	SPACER (LENS)
1146	3-729-002-01	s	FILTER, VENTILATION
1147	3-729-003-01	o	FILTER (LEFT SIDE PLATE 2)
1148	3-729-004-01	s	FILTER (BOTTOM 2)
1149	3-729-005-01	s	FILTER (BNC)
1150	3-729-006-01	s	SHEET (AUDIO), DROP PROTECTION
1151	3-729-007-01	o	PLATE, ORNAMENTAL, TOGGLE SW
1152	3-729-072-01	s	SCREW, +K (4X8)
1153	3-729-076-11	s	SCREW (+B) (2X4)
1154	3-729-092-01	o	BRACKET (A)
1155	3-729-095-01	o	SHIELD, FINGER Serial No. UP TO 10147 (UC) UP TO 30180 (J) UP TO 40315 (EK)
	3-178-382-02	o	FINGER (BOTTOM), SHIELD Serial No. 10148 AND HIGHER (UC) 30181 AND HIGHER (J) 40316 AND HIGHER (EK)
1156	3-734-732-01	o	HOLDER, CONDENSER
1157	3-742-011-01	s	SCREW, 1/4, 3/8 CONVERSION Serial No. UP TO 11483 (UC) UP TO 31451 (J) UP TO 42145 (EK)
1158	3-742-012-01	s	SHOE (B), CAMERA
1159	3-742-015-02	o	WEDGE (B), MOUNTING
1160	3-742-016-01	o	BRACKET, REMOTE
1161	3-742-029-01	o	GUIDE, PC BOARD
1162	3-742-030-01	o	SHEET (DD), INSULATING
1163	3-742-034-01	s	RUBBER (EJ), DROP PROTECTION
1164	3-742-035-01	o	STOPPER, ORNAMENTAL PANEL
1165	3-742-036-01	o	BRACKET, DD CONVERTER
1166	3-742-047-01	o	RETAINER, DD CONVERTER
1167	3-742-048-01	o	HOLDER, DD CONVERTER
1168	3-742-049-01	o	SPACER, DD CONVERTER
1169	3-742-050-01	s	BRACKET, REMOTE
1170	3-729-013-01	s	SCREW (M1.4X1.6) WASHER HEAD (+P) Serial No. 10148 AND HIGHER (UC) 30181 AND HIGHER (J) 40316 AND HIGHER (EK)
1171	3-725-261-01	o	SPACER, SHOULDER PAD
1172	3-182-155-01	s	WASHER, INSULATING
1173	3-182-156-01	s	BUSHING, INSULATING
1174	A-8267-202-B	o	FRAME SUB ASSY, BOTTOM

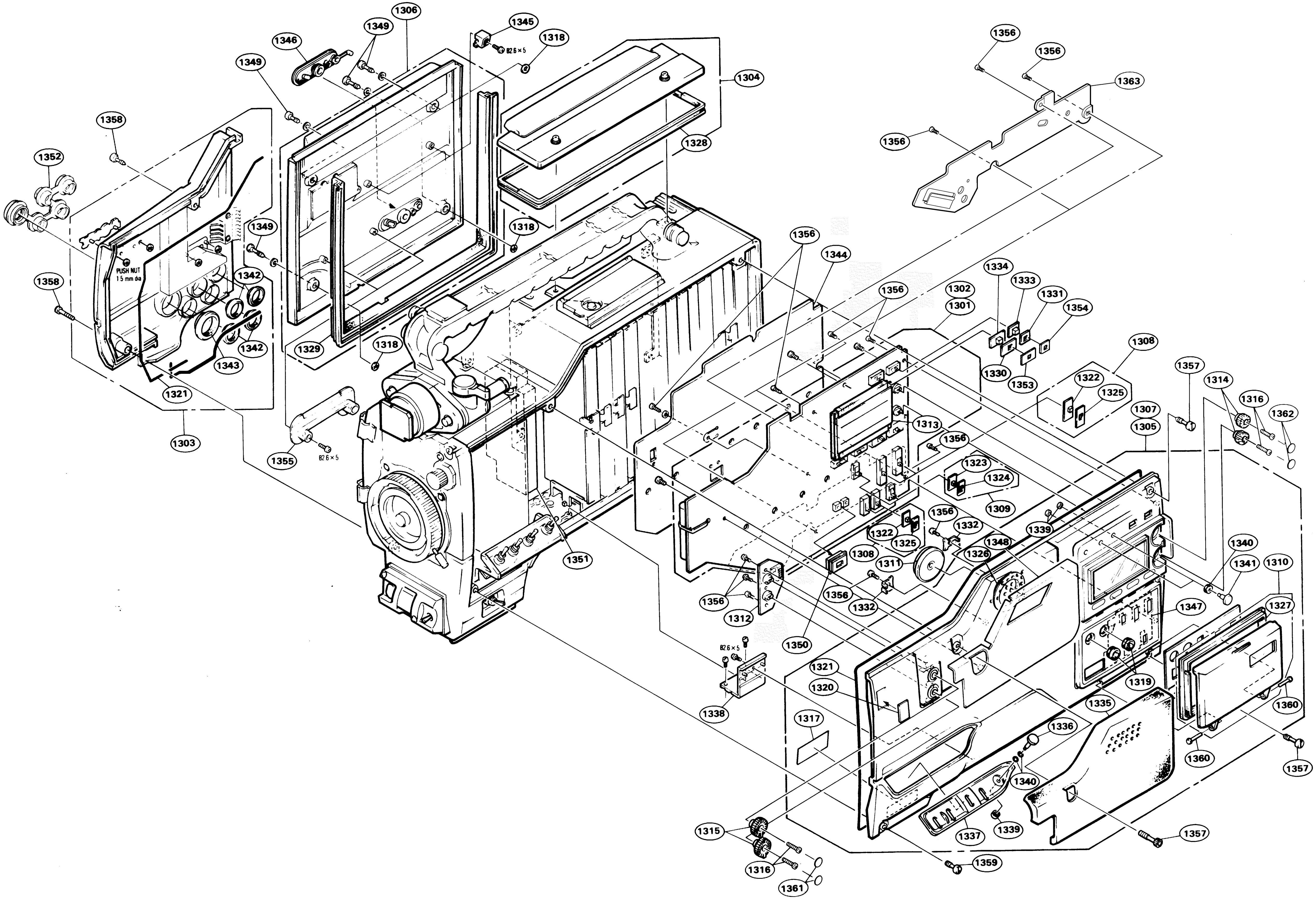
REAR FRAME

No.	Part No.	SP	Description
1201	⚠A-6723-360-A	o	MOUNTED CIRCUIT BOARD, PS-162J (J) Serial No. UP TO 30180
	⚠A-8271-735-A	o	MOUNTED CIRCUIT BOARD, PS-162B (J) Serial No. 30181 AND HIGHER
1202	⚠A-6723-368-A	o	MOUNTED CIRCUIT BOARD, PS-162 (UC,EK) Serial No. UP TO 10147 (UC) UP TO 40315 (EK)
	⚠A-8271-736-A	o	MOUNTED CIRCUIT BOARD, PS-162B (UC,EK) Serial No. 10148 AND HIGHER (UC) 40316 AND HIGHER (EK)
1203	X-3722-373-1	o	HINGE (L) ASSY, SIDE PLATE
1204	X-3722-374-7	o	FRAME SUB ASSY, REAR
1205	1-563-029-21	s	CONNECTOR, 3P FEMALE "AUDIO IN CH1/CH2" (UC,EK)
1206	1-563-030-21	o	CONNECTOR, 3P FEMALE "AUDIO IN CH1/CH2" (J)
1207	1-564-603-11	s	CONNECTOR (WITH DC SW) 4P "DC IN"
1208	1-565-072-11	s	CONNECTOR, (RF) 4P "DC OUT"
1209	1-565-764-11	s	CONNECTOR ASSY, BNC "VIDEO OUT"
1210	1-570-610-11	s	SWITCH, TOGGLE "PHANTOM POWER" (UC,EK)
1211	1-625-895-11	s	FLEXIBLE CARD WIRE, FL-57 Serial No. UP TO 10147 (UC) UP TO 30180 (J) UP TO 40315 (EK)
	1-625-895-21	s	FLEXIBLE CARD WIRE, FL-57 Serial No. 10148 AND HIGHER (UC) 30181 AND HIGHER (J) 40316 AND HIGHER (EK)
1212	3-711-715-01	o	RUBBER, SHIELD
1213	3-717-996-04	s	TERMINAL BOARD
1214	3-718-028-01	o	HOLDER, TERMINAL
1215	3-722-484-01	o	SPACER, SW
1216	3-724-723-01	s	RUBBER (BATT), DROP PROTECTION
1217	3-724-752-01	o	HOLDER (PS), PC BOARD
1218	3-725-227-01	o	BUSHING(P48) (J)
1219	3-725-239-01	s	RUBBER (P48), DROP PROTECTION (UC,EK)
1220	3-725-295-01	s	SCREW, (+) (B3)
1221	3-729-009-04	o	INSULATOR (BATT)
1222	3-729-012-01	s	SCREW (M2X5)
1224	3-729-035-01	s	COVER, REAR CONNECTOR
1225	3-729-076-01	s	SCREW (+B) (2X3)
1226	3-729-076-11	s	SCREW (+B) (2X4)
1227	3-178-798-01	o	CASE CONNECTOR Serial No. 10158 AND HIGHER (UC) 30216 AND HIGHER (J) 40361 AND HIGHER (EK)

REAR FRAME


PS2.6 × 5
PS2.6 × 5
PS2.6 × 5
PS2.6 × 5
PS2.6 × 5
1218 (only for J)
B3 × 10
LW
2mm dia
(for UC, EK)
(for UC, EK)

SIDE PLATE


B2.6×5
PUSH NUT
1.5 mm dia
B2.6×5
B2.6×5

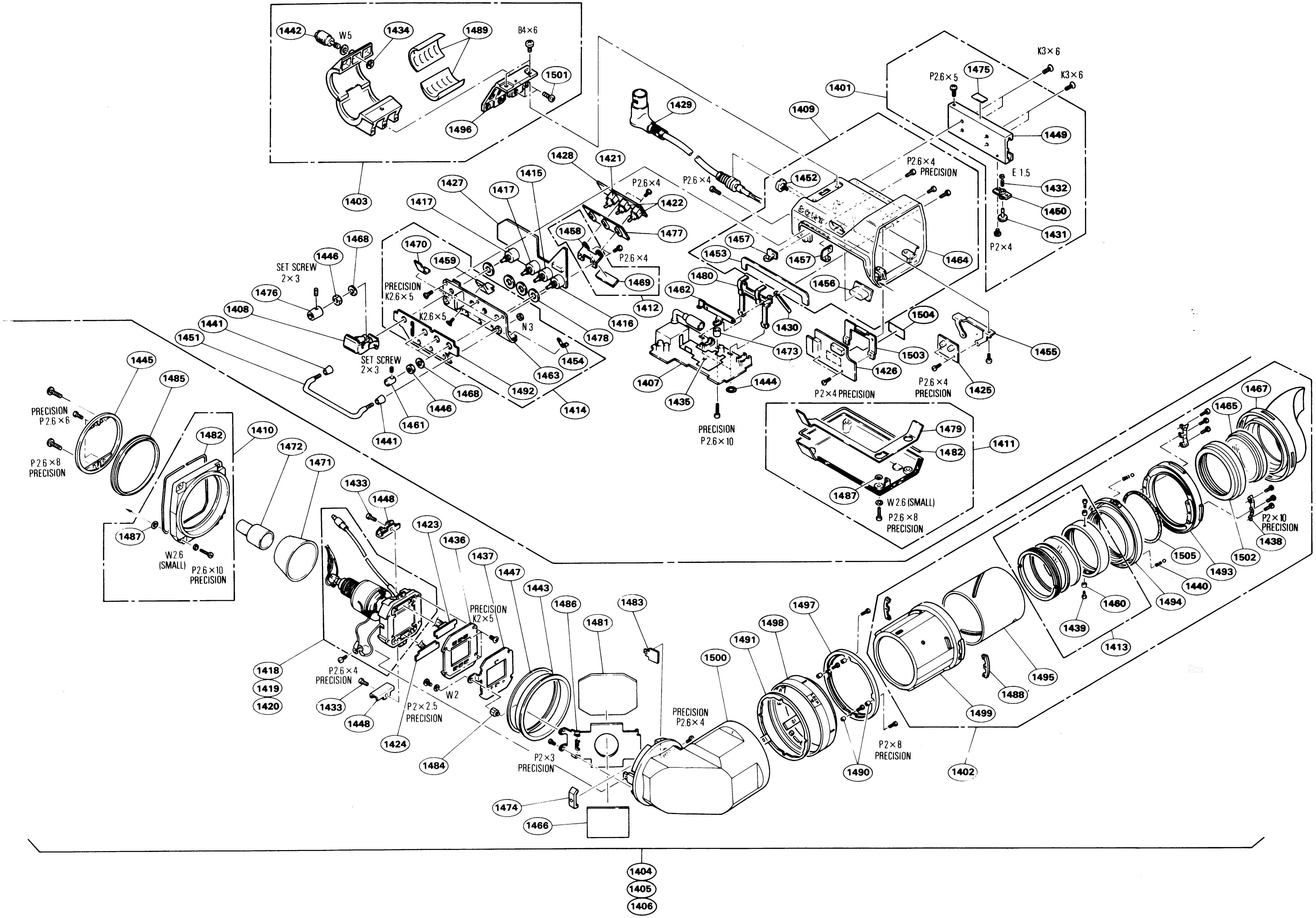
SIDE PLATE

No.	Part No.	SP	Description
1301	A-6713-368-A	o	MOUNTED CIRCUIT BOARD, TC-48A(J,UC) Serial No. UP TO 10147 (UC) UP TO 30180 (J)
	A-8271-733-A	o	MOUNTED CIRCUIT BOARD, TC-48B(J,UC) Serial No. 10148 AND HIGHER (UC) 30181 AND HIGHER (J)
1302	A-6713-372-A	o	MOUNTED CIRCUIT BOARD, TC-48AP(EK) Serial No. UP TO 40315 (EK)
	A-8271-734-A	o	MOUNTED CIRCUIT BOARD, TC-48BP(EK) Serial No. 40316 AND HIGHER (EK)
1303	X-3166-752-3	o	PLATE ASSY, SIDE, LEFT
1304	X-3722-376-6	o	PANEL ASSY, TOP
1305	X-3167-430-1	o	PLATE SUB ASSY, SIDE RIGHT (J,UC)
1306	X-3722-399-6	o	LID SUB ASSY
1307	X-3722-415-8	o	PLATE SUB ASSY (PAL), SIDE
1308	X-3722-416-1	s	KNOB (A) (ORANGE) ASSY, SW
1309	X-3722-417-1	s	KNOB (C) (ORANGE) ASSY, SW
1310	X-3722-440-2	o	DOOR ASSY, ORNAMENTAL
1311	1-503-293-00	s	SPEAKER
1312	1-625-553-13	o	PRINTED CIRCUIT BOARD, VR-70
1313	1-808-502-11	s	LCD MODULE
1314	3-171-996-02	s	KNOB (R), VR
1315	3-171-997-02	s	KNOB (F), VR
1316	3-172-754-21	s	SCREW (1.7X4)
1317	3-176-374-01	o	LABEL, SWITCH
1318	3-669-596-00	s	WASHER (2.3), STOPPER
1319	3-676-244-00	s	COVER, SWITCH
1320	3-678-607-02	o	LABEL, FILTER
1321	3-711-715-01	o	RUBBER, SHIELD
1322	3-717-900-01	s	KNOB (A) (TC), SW
1323	3-717-901-01	s	KNOB (C) (TC), SW
1324	3-717-902-21	o	PLATE, ORNAMENTAL
1325	3-717-902-31	o	PLATE, ORNAMENTAL
1326	3-724-716-02	s	SHEET, DROP PROTECTION
1327	3-724-718-03	s	RUBBER (DOOR), DROP PROTECTION
1328	3-724-721-02	s	RUBBER (TOP), DROP PROTECTION
1329	3-724-722-03	s	RUBBER (CA), DROP PROTECTION
1330	3-724-725-02	s	RUBBER (SLIDE),DROP PROTECTION
1331	3-724-725-12	s	RUBBER (SLIDE),DROP PROTECTION
1332	3-724-726-01	o	HOLDER, SPEAKER
1333	3-724-727-01	s	KNOB (LI), SW
1334	3-724-728-01	s	KNOB (DL), SW
1335	3-724-733-02	s	PAD, SIDE
1336	3-724-747-02	o	KNOB, CTDM
1337	3-724-748-03	o	PLATE, ORNAMENTAL, CAMERA SW
1338	3-724-749-02	o	HINGE (R), SIDE PLATE
1339	3-724-757-02	s	RETAINER, SW, PUSH
1340	3-724-758-02	s	RUBBER (PUSH), DROP PROTECTION
1341	3-724-759-03	s	PUSH (SW)
1342	3-724-760-01	s	RUBBER (BNC), DROP PROTECTION
1343	3-724-761-01	s	RUBBER (PB), DROP PROTECTION
1344	3-725-225-01	o	INSULATOR (TC)
1345	3-725-286-01	o	STOPPER, CASSETTE
1346	3-725-287-01	s	RUBBER, DROP PROTECTION
1347	3-725-290-03	s	RUBBER (SW), DROP PROTECTION
1348	3-725-293-03	s	TAPE (3), ADHESIVE, SIDE PAD
1349	3-725-295-11	s	SCREW, (+) (B3)
1350	3-729-010-01	s	RUBBER (VITC), DROP PROTECTION
1351	3-729-023-01	o	FILTER (MAIN)
1352	A-8319-843-A	s	COVER KIT (RP), SIDE CONNECTOR
1353	3-729-044-01	s	SHEET, SLIDE
1354	3-729-044-11	s	SHEET, SLIDE
1355	3-729-052-02	o	BRACKET, TAPE
1356	3-729-076-01	s	SCREW (+B) (2X3)
1357	3-729-091-01	s	SCREW (M4X17.5)
1358	3-729-091-21	s	SCREW (M4X22.5)
1359	3-729-091-31	s	SCREW (M4X10)
1360	3-743-800-01	o	SHAFT, DOOR
1361	3-178-098-01	s	SHEET (VR), INSULATING Serial No. 10118 AND HIGHER (UC) 30121 AND HIGHER (J) 40242 AND HIGHER (EK)
1362	3-178-098-11	s	SHEET (VR), INSULATING Serial No. 10118 AND HIGHER (UC) 30121 AND HIGHER (J) 40242 AND HIGHER (EK)
1363	3-627-955-01	o	RETAINER, PC BOARD

VIEWFINDER

No.	Part No.	SP	Description
1401	A-7612-320-B	o	GUIDE ASSY, VF SLIDE
1402	A-7612-389-B	s	TUBE SUB ASSY, VF
1403	A-7612-390-D	o	HOLDER ASSY, MICROPHONE
1404	⚠A-8260-215-A	o	VF COMPLETE ASSY (UC)
1405	⚠A-8260-217-A	o	VF COMPLETE ASSY (J)
1406	⚠A-8260-219-A	o	VF COMPLETE ASSY (EK)
1407	⚠A-8271-332-A	o	MOUNTED CIRCUIT BOARD, VF-50
1408	X-3166-692-1	s	GUARD ASSY, VR
1409	X-3710-050-6	o	VF (MAIN) BLOCK ASSY
1410	X-3722-366-8	o	TUBE ASSY, VF ROTARY GUIDE
1411	X-3722-368-5	o	LID ASSY, VF
1412	X-3722-426-1	o	BRACKET ASSY, SW
1413	X-3722-436-1	o	LENS ASSY
1414	X-3722-437-2	o	BRACKET ASSY (C), VR.SW
1415	1-238-290-11	s	RES, VAR, CARBON 1k "CONTRAST"
1416	1-238-293-11	s	RES, VAR, CARBON 10k "BRIGHT"
1417	1-238-296-11	s	RES, VAR, CARBON 10k "PEAKING"
1418	⚠1-251-632-11	s	1.5" CRT ASSY
1421	1-570-984-11	s	SWITCH, TOGGLE "ZEBRA" AUDIO IND"
1422	1-570-985-11	s	SWITCH, TOGGLE "TALLY"
1423	1-643-704-11	o	PRINTED CIRCUIT BOARD, LP-64
1424	1-643-705-11	o	PRINTED CIRCUIT BOARD, LP-65
1425	1-643-706-11	o	PRINTED CIRCUIT BOARD, LP-66
1426	1-643-707-11	o	PRINTED CIRCUIT BOARD, CN-771
1427	1-643-708-11	o	PRINTED CIRCUIT BOARD, VR-149
1428	1-643-709-11	o	PRINTED CIRCUIT BOARD, SW-562
1429	1-950-039-11	s	HARNESS (VF CABLE-2)
1430	2-277-426-01	o	CLAMP
1431	2-277-457-00	s	KNOB, STOPPER
1432	2-277-466-01	s	SPRING, COMPRESSION
1433	3-165-162-01	s	SCREW (+P2.6X5) (TYPE1)
1434	3-165-904-01	s	WASHER, SCREW STOPPER
1435	3-166-307-01	o	PLATE, SHIELD
1436	3-176-022-11	o	SPACER (B), MASK
1437	3-176-023-01	o	PLATE (339), DISPLAY
1438	3-176-414-01	o	RETAINER, RING
1439	3-335-207-01	s	SHAFT, MOTOR
1440	3-573-150-00	o	SPRING, COMPRESSION
1441	3-657-654-00	o	RING, ORNAMENTAL
1442	3-657-657-00	s	SCREW (M5)
1443	3-672-241-00	o	RING (B), SLEEVE
1444	3-672-250-00	o	RING (M2.6), O
1445	3-680-595-01	o	SUPPORT, ROTARY
1446	3-685-104-01	s	NUT (M6), CONTROL
1447	3-685-118-02	o	SPACER, RING
1448	3-685-129-01	o	SPRING (N), LEAF, VF
1449	3-710-007-02	s	GUIDE, VF SLIDE
1450	3-710-008-02	s	HOUSING, STOPPER
1451	3-716-342-02	o	GUARD, CONNECTOR
1452	3-720-946-01	o	PIN, MICROPHONE STOPPER
1453	3-720-977-01	o	PACKING (A), DROP PROTECTION
1454	3-720-978-01	s	PACKING (B), DROP PROTECTION
1455	3-722-474-05	o	BRACKET, LP
1456	3-722-475-04	o	COVER (A)
1457	3-722-476-01	o	NUT, PLATE
1458	3-722-477-01	o	BRACKET, SW
1459	3-722-481-04	o	HOLDER, PC BOARD
1460	3-722-485-01	o	ROLLER, SLIDE
1461	3-722-486-01	s	KNOB
1462	3-720-974-04	o	BRACKET (2), PC BOARD
1463	3-722-494-01	o	BRACKET, VR SW
1464	3-723-002-14	o	VF (MAIN)
1465	3-723-069-03	o	PROTECTOR, MC **Serial No. UP TO 11483 (UC)** **UP TO 31451 (J)** **UP TO 42145 (EK)**
	3-623-710-01	o	MC GLASS **Serial No. 11484 AND HIGHER (UC)** **31452 AND HIGHER (J)** **42146 AND HIGHER (EK)**
1466	3-723-073-01	o	CUSHION, MIRROR
1467	A-8319-943-A	s	EYE CUP KIT (RP)
1468	3-724-744-03	o	WASHER
1469	3-724-745-01	o	SHEET (C), INSULATING
1470	3-724-746-01	o	SHEET (B), INSULATING
1471	3-725-220-02	o	TUBE (A), CRT
1472	3-725-221-04	o	TUBE (B), CRT
1473	3-725-257-01	o	BOSS
1474	3-725-258-03	o	STOPPER, ROTARY
1475	3-725-275-01	o	LABEL, LOCK
1476	3-725-277-01	s	KNOB (B)
1477	3-725-278-01	s	PACKING (SW), DROP PROTECTION
1478	3-725-279-01	s	PACKING (VR), DROP PROTECTION
1479	3-725-280-01	s	PACKING (A), DROP PROTECTION
1480	3-725-282-03	o	HINGE, PC BOARD
1481	3-729-099-01	o	MIRROR
1482	3-729-701-21	s	RUBBER (CARBON), CONDUCTIVE
1483	3-734-739-01	o	SHEET, INSULATING, MASK
1484	3-734-740-01	o	SUPPORT
1485	3-734-760-01	o	RING
1486	3-742-001-02	o	HOLDER (2), MIRROR
1487	3-742-004-01	s	RING, NYLON
1488	3-742-038-01	o	NUT (2), PLATE
1489	3-742-039-01	s	CUSHION, MICROPHONE
1490	3-742-045-01	o	TUBE
1491	3-742-046-01	o	BRACKET, SAFETY
1492	3-742-051-01	o	LABEL
1493	3-742-052-01	o	HOLDER, EYE CUP
1494	3-742-053-01	o	RING
1495	3-742-054-01	o	TUBE
1496	3-742-057-03	o	HOLDER (BASE), MICROPHONE
1497	3-742-058-01	o	RING, FIXED
1498	3-742-059-01	o	RING, HOLD
1499	3-742-060-01	o	HOLDER, RING
1500	3-742-062-01	o	TUBE (2), VF
1501	3-742-074-01	s	SCREW (3X6)
1502	3-742-075-01	o	HOLDER, FILTER **Serial No. UP TO 11483 (UC)** **UP TO 31451 (J)** **UP TO 42145 (EK)**
	3-623-709-01	o	MC HOLDER **Serial No. 11484 AND HIGHER (UC)** **31452 AND HIGHER (J)** **42146 AND HIGHER (EK)**
1503	3-742-205-02	o	BRACKET, CN
1504	3-177-365-01	o	SHEET (CN), INSULATING
1505	3-726-904-01	o	RING (MT), O

VIEWFINDER


W5
B4×6
1501
P2.6×5
K3×6
K3×6
P2.6×4
P2.6×4
P2.6×4
PRECISION
E1.5
P2×4
P2.6×4
SET SCREW
2×3
PRECISION
K2.6×5
K2.6×5
N3
1504
1503
SET SCREW
2×3
PRECISION
P2.6×10
P2×4 PRECISION
P2.6×4
PRECISION
PRECISION
P2.6×6
P2.6×8
PRECISION
W2.6
(SMALL)
P2.6×10
PRECISION
W2.6 (SMALL)
P2.6×8
PRECISION
P2×10
PRECISION
1502
1505
PRECISION
K2×5
P2.6×4
PRECISION
W2
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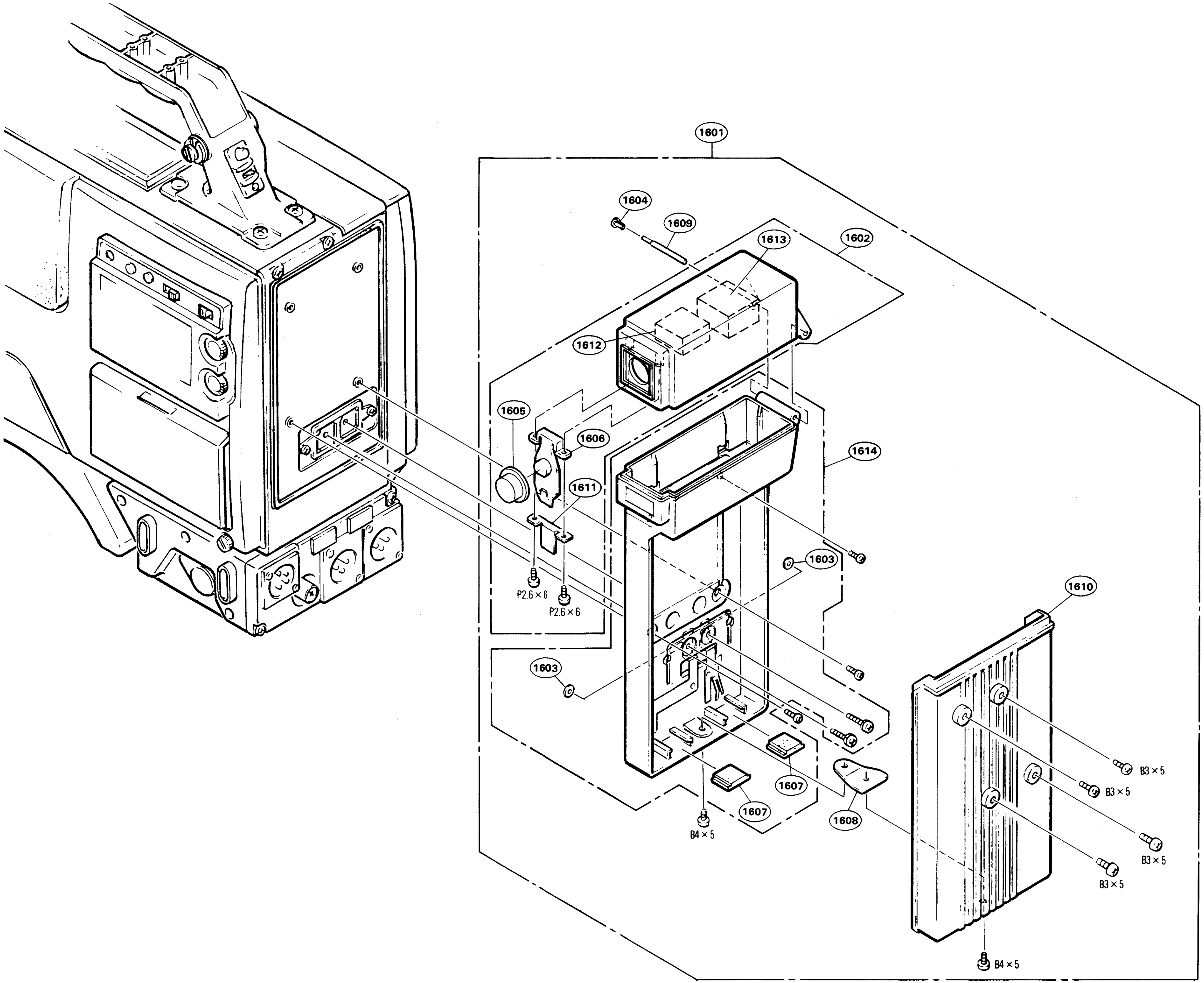
PRECISION
P2×3
PRECISION
1500
PRECISION
P2.6×4
P2×8
PRECISION

BATTERY CASE


1601
1602
1603
1603
1604
1605
1606
1607
1607
1608
1609
1610
1611
1612
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1614
P2.6×6
P2.6×6
B4×5
B4×5
B3×5
B3×5
B3×5
B3×5

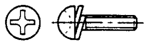
BATTERY CASE

No.	Part No.	SP	Description
1601	A-6703-651-C	s	CASE ASSY, BATTERY
1602	X-3717-701-3	o	COVER ASSY, TOP, BATTERY
1603	3-669-596-00	s	WASHER (2.3), STOPPER
1604	3-703-075-00	s	CAP 2, SHAFT
1605	3-717-702-01	s	PUSH BUTTON
1606	3-717-703-03	s	HOOK
1607	3-717-707-02	o	CUSHION (2)
1608	3-717-708-01	o	RETAINER, CASE
1609	3-717-709-01	o	SHAFT, LID
1610	3-718-040-01	o	COVER (1), BATTERY CASE
1611	3-718-172-01	o	RETAINER, HOOK
1612	3-729-720-01	o	CUSHION (LEFT)
1613	3-729-721-01	o	CUSHION (RIGHT)
1614	X-3717-742-5	o	CASE SUB ASSY, BATTERY

Page 13-48 and 13-49 are missing.

SCREWS

+PS
Czn-N



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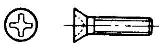
Size	Parts No.
2 × 4	255-20
× 5	283-00
× 6	255-40
× 8	255-50
× 10	283-10
× 12	283-70
2.6 × 4	284-00
× 5	284-10
× 6	284-20
× 8	284-30
× 10	284-40
× 12	259-70
× 14	259-80
× 16	260-00
× 20	260-20

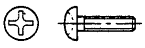
+K
Cr-N



7-682-□□□-□□

SIZE	Parts No.
3 x 4	245-04
x 5	246-04
x 6	247-04
x 8	248-04
x 10	249-04
x 12	250-04
x 14	251-04
x 16	252-04
x 20	253-04
4 x 6	260-04
x 8	261-04
x 10	262-04
x 12	263-04
x 14	264-04
x 16	265-04
x 20	266-04

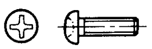
+B
Bzn-N



7-621-□□□-□□

Size	Parts No.
2 × 3	772-00
× 4	772-10
× 5	772-20
× 6	772-30
× 8	772-40
× 10	772-50
× 12	772-60
× 14	772-70
× 16	772-80
× 20	= =
2.6 × 3	775-00
× 4	775-10
× 5	775-20
× 6	773-95
× 8	775-40
× 10	775-50
× 12	775-60
× 14	775-70
× 16	775-80
× 20	775-90

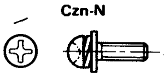
+B
Cr-N



7-621-□□□-□□

SIZE	Parts No.
2 x 3	772-08
x 4	772-18
x 5	771-06
x 6	772-38
x 8	772-48
x 10	772-58
x 12	772-68
x 14	772-78
x 16	772-88
x 20	–
2.6 x 3	775-08
x 4	773-86
x 5	770-87
x 6	770-67
x 8	770-99
x 10	773-87
x 12	775-68
x 14	775-78
x 16	775-88
x 20	773-91

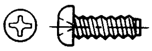
+PSW
Czn-N



7-682-□□□-□□

SIZE	Parts No.
3 x 6	947-01
x 8	948-01
x 10	949-01
x 12	950-01
x 14	951-01
x 16	952-01
x 20	953-01
x 25	954-01
x 30	955-01
x 35	956-01
x 40	957-01
4 x 8	961-01
x 10	962-01
x 12	963-01
x 14	964-01
x 16	965-01
x 20	966-01
x 25	967-01
x 30	968-01
x 35	969-01
x 40	970-01

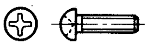
+P
BZn-N4



7-685-□□□-□□

SIZE	Parts No.
2 x 4	102-79
x 5	103-79
x 6	104-79
x 8	105-79
x 10	106-79
x 12	107-79
2.6 x 4	131-79
x 5	132-79
x 6	133-79
x 8	134-79
x 10	135-79
x 12	136-79
x 14	137-79
x 16	138-79
3 x 5	144-79
x 6	645-79
x 8	646-79
x 10	647-79
x 12	648-79
x 14	649-79
x 16	650-79
x 18	–
x 20	651-79
x 25	152-19
x 30	153-19
x 35	154-19
x 40	155-19
4 x 6	158-19
x 8	659-79
x 10	660-79
x 12	661-79
x 14	662-79
x 16	663-79
x 20	664-79
x 25	665-79
x 30	666-79
x 35	167-79

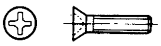
+P
Czn-N



7-621-□□□-□□

SIZE	Parts No.
2 x 3	255-15
x 4	255-25
x 5	255-35
x 6	255-45
x 8	255-55
x 10	255-65
x 12	255-75
x 14	255-85
x 16	256-05
x 20	256-25
2.3 x 5	257-35
x 6	257-45
x 8	257-55
x 10	257-65
x 12	257-75
x 14	257-85
x 16	258-05
x 20	258-25
2.6 x 3	259-15
x 4	259-25
x 5	259-35
x 6	259-45
x 8	259-55
x 10	259-65
x 12	259-75
x 14	259-85
x 16	260-05
x 20	260-25

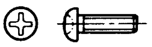
+K
Bzn-N



7-682-□□□-□□

SIZE	Parts No.
3 x 4	245-09
x 5	246-09
x 6	247-09
x 8	248-09
x 10	249-09
x 12	250-09
x 14	251-09
x 16	252-09
x 20	253-09
4 x 6	260-09
x 8	261-09
x 10	262-09
x 12	263-09
x 14	264-09
x 16	265-09
x 20	266-09
5 x 8	274-09
x 10	275-09
x 12	276-09
x 14	277-09
x 16	278-09
x 20	279-09
x 25	280-09
x 30	281-09
x 35	282-09
x 40	283-09
x 45	284-09
x 50	285-09

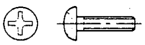
+B
Bzn-N



7-682-□□□-□□

SIZE	Parts No.
3 x 3	544-09
x 4	545-09
x 5	546-09
x 6	547-09
x 8	548-09
x 10	549-09
x 12	550-09
x 14	551-09
x 16	552-09
x 20	553-09
x 30	555-09
4 x 4	558-09
x 5	559-09
x 6	560-09
x 8	561-09
x 10	562-09
x 12	563-09
x 14	564-09
x 16	565-09
x 20	566-09
5 x 8	574-09
x 10	575-09
x 12	576-09
x 14	577-09
x 16	578-09
x 20	579-09

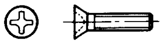
+B
Cr-N



7-682-□□□-□□

Size	Parts No.
3 × 3	544-04
× 4	545-04
× 5	546-04
× 6	547-04
× 8	548-04
× 10	549-04
× 12	550-04
× 14	551-04
× 16	552-04
× 20	553-04
4 × 4	558-04
× 5	559-04
× 6	560-04
× 8	561-04
× 10	562-04
× 12	563-04
× 14	564-04
× 16	565-04
× 20	566-04
× 25	567-04
× 30	568-04
× 35	569-04
× 40	570-04
× 45	571-04
× 50	572-04
5 × 8	574-04
× 10	575-04
× 12	576-04
× 14	577-04
× 16	578-04
× 20	579-04
× 25	580-04
× 30	581-04

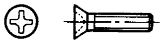
PRECISION +K
Cr-N



7-627-□□□-□□

SIZE	Parts No.
1.7 x 1.8	–
x 2	–
x 2.2	–
x 2.5	–
x 2.8	–
x 3	–
x 3.5	–
x 4	–
x 4.5	–
x 5	–
x 5.5	–
x 6	–
2 x 2	452-07
x 2.2	452-87
x 2.5	–
x 2.8	–
x 3	452-17
x 3.5	–
x 4	452-27
x 4.5	–
x 5	–
x 5.5	–
x 6	–
x 7	452-67
x 8	–
2.6 x 3.5	–
x 4	454-17
x 4.5	–
x 5	454-37
x 5.5	–
x 6	–
x 7	–
x 8	–

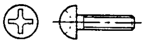
PRECISION +K
Bzn-N



7-627-□□□-□□

SIZE	Parts No.
1.7 x 1.8	–
x 2	450-28
x 2.2	–
x 2.5	450-48
x 2.8	–
x 3	450-58
x 3.5	–
x 4	450-78
x 4.5	–
x 5	450-98
x 5.5	–
x 6	–
2 x 2	452-08
x 2.2	452-88
x 2.5	452-48
x 2.8	–
x 3	452-18
x 3.5	452-98
x 4	452-28
x 4.5	–
x 5	452-38
x 5.5	–
x 6	452-58
x 7	452-68
x 8	452-78
2.6 x 3.5	–
x 4	–
x 4.5	454-28
x 5	454-38
x 5.5	–
x 6	–
x 7	–
x 8	–

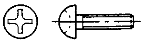
PRECISION +P
Bzn-N



7-627-□□□-□□

Size	Parts No.
1.7 × 1.6	552-18
× 1.8	–
× 2	552-28
× 2.2	–
× 2.5	552-08
× 2.8	–
× 3	552-38
× 3.5	552-78
× 4	552-48
× 4.5	–
× 5	552-58
× 5.5	–
× 6	552-68
× 8	552-98
2 × 1.8	554-38
× 2	553-18
× 2.2	–
× 2.5	553-28
× 2.8	554-58
× 3	553-38
× 3.5	554-18
× 4	553-48
× 4.5	553-58
× 5	554-28
× 5.5	554-68
× 6	553-68
× 7	553-88
× 8	553-98
× 9	554-48
× 10	553-78
2.6 × 2.8	556-08
× 3	–
× 3.5	556-28
× 4	556-38
× 4.5	556-48
× 5	556-58
× 5.5	–
× 6	556-78
× 7	–
× 8	556-98
× 9	–
× 10	557-48

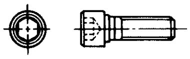
PRECISION +P
Cr-N



7-627-□□□-□□

Size	Parts No.
1.7 × 1.6	–
× 1.8	–
× 2	552-27
× 2.2	552-87
× 2.5	552-07
× 2.8	–
× 3	552-37
× 3.5	–
× 4	552-47
× 4.5	552-67
× 5	552-57
× 5.5	557-07
× 6	552-77
× 8	552-97
2 × 1.8	554-37
× 2	553-17
× 2.2	554-07
× 2.5	553-27
× 2.8	–
× 3	553-37
× 3.5	554-17
× 4	553-47
× 4.5	553-57
× 5	553-67
× 5.5	–
× 6	554-27
× 7	553-87
× 8	553-97
× 10	553-77
2.6 × 2.8	556-07
× 3	–
× 3.5	–
× 4	556-37
× 4.5	–
× 5	556-57
× 5.5	–
× 6	556-77
× 7	–
× 8	556-97
× 9	–
× 10	557-47

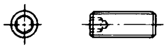
BOLT, HEXAGON SOCKET
SNCM6 BZn-N4



7-683-□□□-□□

SIZE	Parts No.
3 x 4	401-04
3 x 5	402-04
3 x 6	403-04
3 x 8	404-04
3 x 10	405-04
3 x 12	406-04
3 x 14	407-04
3 x 16	408-04
3 x 20	410-04
4 x 5	417-04
4 x 6	418-04
4 x 8	419-04
4 x 10	420-04
4 x 12	421-04
4 x 14	422-04
4 x 16	423-04
4 x 20	425-04
4 x 25	427-04
5 x 8	434-04
5 x 10	435-04
5 x 12	436-04
5 x 14	437-04
5 x 16	438-04
5 x 20	440-04
5 x 25	442-04
5 x 30	444-04
5 x 50	447-04
6 x 10	452-04
6 x 12	453-04
6 x 14	454-04
6 x 16	455-04
6 x 20	457-04
6 x 25	459-04
6 x 30	461-04
6 x 35	463-04
6 x 40	465-04
6 x 45	466-04
6 x 55	468-04
8 x 12	470-04
8 x 14	471-04
8 x 16	472-04
8 x 20	473-04
8 x 25	474-04
8 x 30	475-04
8 x 35	476-04
8 x 40	477-04
8 x 45	478-04
8 x 50	479-04

HEXAGON SET SCREW (FLAT)
SNCM6-PD



7-621-□□□-□□

SIZE	Parts No.
2 x 2.5	731-08
2 x 3	732-08
2 x 4	733-08
2 x 5	–
2 x 6	–
2.6 x 3	737-08
2.6 x 4	738-08
2.6 x 5	739-08
2.6 x 6	740-08

13-3. ELECTRICAL PARTS LIST

CAPACITOR, CHIP CERAMIC

Part No.	SP	Description
1-163-083-00	s	P, CHIP CERAMIC 1pF +-0.25pF 50V
1-163-085-00	s	P, CHIP CERAMIC 2pF +-0.25pF 50V
1-163-087-00	s	P, CHIP CERAMIC 4pF +-0.25pF 50V
1-163-089-00	s	P, CHIP CERAMIC 6pF +-0.5pF 50V
1-163-091-00	s	P, CHIP CERAMIC 8pF +-0.5pF 50V
1-163-093-00	s	P, CHIP CERAMIC 10pF 5% 50V
1-163-097-00	s	P, CHIP CERAMIC 15pF 5% 50V
1-163-101-00	s	P, CHIP CERAMIC 22pF 5% 50V
1-163-105-00	s	P, CHIP CERAMIC 33pF 5% 50V
1-163-109-00	s	P, CHIP CERAMIC 47pF 5% 50V
1-163-113-00	s	P, CHIP CERAMIC 68pF 5% 50V
1-163-117-00	s	P, CHIP CERAMIC 100pF 5% 50V
1-163-121-00	s	P, CHIP CERAMIC 150pF 5% 50V
1-163-125-00	s	P, CHIP CERAMIC 220pF 5% 50V
1-163-129-00	s	P, CHIP CERAMIC 330pF 5% 50V
1-163-133-00	s	P, CHIP CERAMIC 470pF 5% 50V
1-163-137-00	s	P, CHIP CERAMIC 680pF 5% 50V
1-163-141-00	s	P, CHIP CERAMIC 1000pF 5% 50V
1-163-145-00	s	P, CHIP CERAMIC 1500pF 10% 50V
1-164-161-11	s	P, CHIP CERAMIC 2200pF 10% 100V
1-164-182-11	s	P, CHIP CERAMIC 3300pF 10% 100V
1-163-017-00	s	P, CHIP CERAMIC 4700pF 10% 50V
1-163-019-00	s	P, CHIP CERAMIC 6800pF 10% 50V
1-164-232-11	s	P, CHIP CERAMIC 0.01 20% 100V
1-163-023-00	s	P, CHIP CERAMIC 0.015 10% 50V
1-163-034-00	s	P, CHIP CERAMIC 0.033 50V
1-163-035-00	s	P, CHIP CERAMIC 0.047 50V
1-163-036-00	s	P, CHIP CERAMIC 0.068 50V
1-163-038-00	s	P, CHIP CERAMIC 0.1 50V

CAPACITOR, CHIP TANTALUM

Part No.	SP	Description
1-135-070-00	s	P, CHIP TANTALUM 0.1 10% 35V
1-135-071-21	s	P, CHIP TANTALUM 0.15 10% 35V
1-135-072-21	s	P, CHIP TANTALUM 0.22 10% 35V
1-135-073-00	s	P, CHIP TANTALUM 0.33 10% 35V
1-135-145-11	s	P, CHIP TANTALUM 0.47 20% 35V
1-135-074-21	s	P, CHIP TANTALUM 0.47 10% 35V
1-135-087-21	s	P, CHIP TANTALUM 0.68 10% 20V
1-135-075-21	s	P, CHIP TANTALUM 0.68 10% 35V
1-135-091-00	s	P, CHIP TANTALUM 1.0 10% 16V
1-135-076-21	s	P, CHIP TANTALUM 1.0 10% 35V
1-135-152-21	s	P, CHIP TANTALUM 1.5 10% 35V
1-135-077-21	s	P, CHIP TANTALUM 1.5 10% 35V
1-135-153-21	s	P, CHIP TANTALUM 2.2 10% 25V
1-135-078-21	s	P, CHIP TANTALUM 2.2 10% 35V
1-135-092-21	s	P, CHIP TANTALUM 3.3 10% 16V
1-135-079-21	s	P, CHIP TANTALUM 3.3 10% 35V
1-135-155-21	s	P, CHIP TANTALUM 4.7 10% 16V
1-135-085-21	s	P, CHIP TANTALUM 4.7 10% 25V
1-135-156-21	s	P, CHIP TANTALUM 6.8 10% 10V
1-135-089-21	s	P, CHIP TANTALUM 6.8 10% 20V
1-135-159-21	s	P, CHIP TANTALUM 10 10% 20V
1-135-097-21	s	P, CHIP TANTALUM 15 10% 10V
1-135-161-21	s	P, CHIP TANTALUM 22 10% 10V
1-135-166-21	s	P, CHIP TANTALUM 47 10% 10V

RESISTOR, CHIP

Part No.	SP	Description
1-216-295-00	s	S, CHIP 2.2 5% 1/10W
1-216-298-00	s	S, CHIP 2.2 5% 1/10W
1-216-302-00	s	S, CHIP 2.7 5% 1/10W
1-216-304-11	s	S, CHIP 3.3 5% 1/10W
1-216-306-11	s	S, CHIP 3.9 5% 1/10W
1-216-308-00	s	S, CHIP 4.7 5% 1/10W
1-216-309-00	s	S, CHIP 5.6 5% 1/10W
1-216-311-00	s	S, CHIP 6.8 5% 1/10W
1-216-313-00	s	S, CHIP 8.2 5% 1/10W
1-216-001-00	s	S, CHIP 10 5% 1/10W
1-216-003-11	s	S, CHIP 12 5% 1/10W
1-216-005-00	s	S, CHIP 15 5% 1/10W
1-216-007-00	s	S, CHIP 18 5% 1/10W
1-216-009-00	s	S, CHIP 22 5% 1/10W
1-216-011-00	s	S, CHIP 27 5% 1/10W
1-216-013-00	s	S, CHIP 33 5% 1/10W
1-216-015-00	s	S, CHIP 39 5% 1/10W
1-216-017-00	s	S, CHIP 47 5% 1/10W
1-216-019-00	s	S, CHIP 56 5% 1/10W
1-216-021-00	s	S, CHIP 68 5% 1/10W
1-216-023-00	s	S, CHIP 82 5% 1/10W
1-216-025-00	s	S, CHIP 100 5% 1/10W
1-216-027-00	s	S, CHIP 120 5% 1/10W
1-216-029-00	s	S, CHIP 150 5% 1/10W
1-216-031-00	s	S, CHIP 180 5% 1/10W
1-216-033-00	s	S, CHIP 220 5% 1/10W
1-216-035-00	s	S, CHIP 270 5% 1/10W
1-216-037-00	s	S, CHIP 330 5% 1/10W
1-216-039-00	s	S, CHIP 390 5% 1/10W
1-216-041-00	s	S, CHIP 470 5% 1/10W
1-216-043-00	s	S, CHIP 560 5% 1/10W
1-216-045-00	s	S, CHIP 680 5% 1/10W
1-216-047-00	s	S, CHIP 820 5% 1/10W
1-216-049-00	s	S, CHIP 1k 5% 1/10W
1-216-051-00	s	S, CHIP 1.2k 5% 1/10W
1-216-053-00	s	S, CHIP 1.5k 5% 1/10W
1-216-055-00	s	S, CHIP 1.8k 5% 1/10W
1-216-057-00	s	S, CHIP 2.2k 5% 1/10W
1-216-059-00	s	S, CHIP 2.7k 5% 1/10W
1-216-061-00	s	S, CHIP 3.3k 5% 1/10W
1-216-063-00	s	S, CHIP 3.9k 5% 1/10W
1-216-065-00	s	S, CHIP 4.7k 5% 1/10W
1-216-067-00	s	S, CHIP 5.6k 5% 1/10W
1-216-069-00	s	S, CHIP 6.8k 5% 1/10W
1-216-071-00	s	S, CHIP 8.2k 5% 1/10W
1-216-073-00	s	S, CHIP 10k 5% 1/10W
1-216-075-00	s	S, CHIP 12k 5% 1/10W
1-216-077-00	s	S, CHIP 15k 5% 1/10W
1-216-079-00	s	S, CHIP 18k 5% 1/10W
1-216-081-00	s	S, CHIP 22k 5% 1/10W
1-216-083-00	s	S, CHIP 27k 5% 1/10W
1-216-085-00	s	S, CHIP 33k 5% 1/10W
1-216-748-11	s	S, CHIP 39k 5% 1/10W
1-216-089-00	s	S, CHIP 47k 5% 1/10W
1-216-091-00	s	S, CHIP 56k 5% 1/10W

RESISTOR, CHIP

Part No.	SP	Description
1-216-093-00	s	S, CHIP 68k 5% 1/10W
1-216-095-00	s	S, CHIP 82k 5% 1/10W
1-216-097-00	s	S, CHIP 100k 5% 1/10W
1-216-099-00	s	S, CHIP 120k 5% 1/10W
1-216-101-00	s	S, CHIP 150k 5% 1/10W
1-216-103-00	s	S, CHIP 180k 5% 1/10W
1-216-105-00	s	S, CHIP 220k 5% 1/10W
1-216-107-00	s	S, CHIP 270k 5% 1/10W
1-216-109-00	s	S, CHIP 330k 5% 1/10W
1-216-111-00	s	S, CHIP 390k 5% 1/10W
1-216-113-00	s	S, CHIP 470k 5% 1/10W
1-216-115-00	s	S, CHIP 560k 5% 1/10W
1-216-117-00	s	S, CHIP 680k 5% 1/10W
1-216-119-00	s	S, CHIP 820k 5% 1/10W
1-216-121-00	s	S, CHIP 1.0M 5% 1/10W
1-216-123-11	s	S, CHIP 1.2M 5% 1/10W
1-216-125-00	s	S, CHIP 1.5M 5% 1/10W
1-216-127-11	s	S, CHIP 1.8M 5% 1/10W
1-216-129-00	s	S, CHIP 2.2M 5% 1/10W
1-216-131-11	s	S, CHIP 2.7M 5% 1/10W
1-216-133-00	s	S, CHIP 3.3M 5% 1/10W

AFM-6 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6713-319-B	o	MOUNTED CIRCUIT BOARD, AFM-6
1pc	3-724-705-01	o	PLATE (AFM-6), ORNAMENTAL
1pc	3-724-753-01	o	RING
1pc	7-688-001-12	s	W 2, MIDDLE
5pcs	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
C1	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C2	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C3	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C4	1-163-227-11	s	CERAMIC 10PF 5% 50V
C5	1-163-239-11	s	CERAMIC 33PF 5% 50V
C6	1-163-235-11	s	CERAMIC 22PF 5% 50V
C7	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C8	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C11	1-163-239-11	s	CERAMIC 33PF 5% 50V
C16	1-163-239-11	s	CERAMIC 33PF 5% 50V
C17	1-163-239-11	s	CERAMIC 33PF 5% 50V
C18	1-163-239-11	s	CERAMIC 33PF 5% 50V
C101	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C105	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C108	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C110	1-163-245-11	s	CERAMIC 56PF 5% 50V
C115	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C117	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C120	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C201	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C401	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C402	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C403	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C405	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C501	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C502	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C503	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C504	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C529	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C530	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C543	1-135-157-21	s	TANTAL 10uF 10% 6.3V
C544	1-135-136-21	s	TANTALUM 6.8uF 10% 35V
C545	1-164-148-11	s	CERAMIC 0.0082uF 5% 50V
C546	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C547	1-163-222-11	s	CERAMIC 5PF 0.25PF 50V
C548	1-164-147-11	s	CERAMIC 0.0047uF 5% 50V
C549	1-136-160-00	s	FILM 0.039uF 5% 50V
C552	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C553	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C554	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C558	1-135-157-21	s	TANTAL 10uF 10% 6.3V
C559	1-135-136-21	s	TANTALUM 6.8uF 10% 35V
C560	1-164-148-11	s	CERAMIC 0.0082uF 5% 50V
C561	1-163-222-11	s	CERAMIC 5PF 0.25PF 50V
C562	1-164-147-11	s	CERAMIC 0.0047uF 5% 50V
C565	1-136-160-00	s	FILM 0.039uF 5% 50V
C567	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C568	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
CN1	1-566-960-11	o	CONNECTOR, 50P, MALE
CN2	1-566-388-11	s	CONNECTOR, 8P, MALE
CNJ2	1-565-413-11	o	PLUG, SHORTING
CV1	1-141-448-21	s	CAP, ADJ 40PF
CV2	1-141-448-21	s	CAP, ADJ 40PF
CV3	1-141-448-21	s	CAP, ADJ 40PF
CV4	1-141-448-21	s	CAP, ADJ 40PF
CV101	1-141-448-21	s	CAP, ADJ 40PF
CV102	1-141-448-21	s	CAP, ADJ 40PF
CV103	1-141-448-21	s	CAP, ADJ 40PF
CV104	1-141-448-21	s	CAP, ADJ 40PF
D201	8-719-800-76	s	DIODE 1SS226
D402	8-719-800-76	s	DIODE 1SS226
D501	8-719-800-76	s	DIODE 1SS226
D502	8-719-800-76	s	DIODE 1SS226
D503	8-719-800-76	s	DIODE 1SS226
D504	8-719-800-76	s	DIODE 1SS226
D505	8-719-400-18	s	DIODE MA152WK
D506	8-719-104-34	s	DIODE 1S2836
FL1	1-236-019-11	s	FILTER, LOW-PASS
IC1	8-741-152-40	s	IC SBX1524-01
IC2	8-759-209-15	s	IC TC4SU69F
IC3	8-759-209-15	s	IC TC4SU69F
IC4	8-759-209-15	s	IC TC4SU69F
IC401	8-759-100-94	s	IC UPC358G2
IC501	1-236-003-11	s	FILTER, LOW-PASS
IC502	8-752-009-90	s	IC CX20099
IC503	8-759-403-92	s	IC AN6391NS
IC504	8-759-403-92	s	IC AN6391NS
IC505	8-759-209-15	s	IC TC4SU69F
IC506	8-759-700-38	s	IC NJM4559M
IC507	8-759-700-38	s	IC NJM4559M
IC601	8-759-100-96	s	IC UPC4558G2
L1	1-410-393-11	s	INDUCTOR CHIP 100uH
L2	1-410-393-11	s	INDUCTOR CHIP 100uH
L3	1-410-658-31	s	INDUCTOR CHIP 220uH
L4	1-410-381-11	s	INDUCTOR CHIP 10uH
L5	1-410-389-31	s	INDUCTOR CHIP 47uH
L6	1-408-779-31	s	INDUCTOR CHIP 15uH
L101	1-410-393-11	s	INDUCTOR CHIP 100uH
L102	1-410-393-11	s	INDUCTOR CHIP 100uH
Q1	8-729-905-12	s	TRANSISTOR DTA144EU
Q2	8-729-905-18	s	TRANSISTOR DTC144EU
Q3	8-729-905-18	s	TRANSISTOR DTC144EU
Q4	8-729-117-32	s	TRANSISTOR 2SC4177
Q5	8-729-117-32	s	TRANSISTOR 2SC4177
Q6	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q7	8-729-117-72	s	TRANSISTOR 2SC4178
Q8	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q9	8-729-117-72	s	TRANSISTOR 2SC4178
Q101	8-729-117-72	s	TRANSISTOR 2SC4178
Q102	8-729-905-12	s	TRANSISTOR DTA144EU
Q103	8-729-117-72	s	TRANSISTOR 2SC4178
Q104	8-729-117-72	s	TRANSISTOR 2SC4178
Q105	8-729-117-72	s	TRANSISTOR 2SC4178
Q106	8-729-117-72	s	TRANSISTOR 2SC4178
Q107	8-729-117-72	s	TRANSISTOR 2SC4178
Q108	8-729-117-72	s	TRANSISTOR 2SC4178
Q109	8-729-109-44	s	TRANSISTOR 2SK94
Q110	8-729-109-44	s	TRANSISTOR 2SK94
Q111	8-729-109-44	s	TRANSISTOR 2SK94

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(AFM-6 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q112	8-729-109-44	s	TRANSISTOR 2SK94
Q113	8-729-117-72	s	TRANSISTOR 2SC4178
Q115	8-729-905-12	s	TRANSISTOR DTA144EU
Q121	8-729-109-44	s	TRANSISTOR 2SK94
Q122	8-729-109-44	s	TRANSISTOR 2SK94
Q123	8-729-109-44	s	TRANSISTOR 2SK94
Q124	8-729-109-44	s	TRANSISTOR 2SK94
Q155	8-729-117-32	s	TRANSISTOR 2SC4177
Q156	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q157	8-729-117-32	s	TRANSISTOR 2SC4177
Q158	8-729-109-44	s	TRANSISTOR 2SK94
Q159	8-729-109-44	s	TRANSISTOR 2SK94
Q160	8-729-109-44	s	TRANSISTOR 2SK94
Q161	8-729-109-44	s	TRANSISTOR 2SK94
Q170	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q201	8-729-106-68	s	TRANSISTOR 2SC1615A-GP
Q202	8-729-106-68	s	TRANSISTOR 2SC1615A-GP
Q401	8-729-807-50	s	TRANSISTOR 2SD1623
Q402	8-729-905-18	s	TRANSISTOR DTC144EU
Q501	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q502	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q503	8-729-209-07	s	TRANSISTOR 2SC4213-B
R1	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R2	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R3	1-216-832-11	s	METAL, CHIP 8.2K 5% 1/16W
R4	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R5	1-216-828-11	s	METAL, CHIP 3.9K 5% 1/16W
R6	1-216-835-11	s	METAL, CHIP 15K 5% 1/16W
R7	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R8	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
R10	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R11	1-216-828-11	s	METAL, CHIP 3.9K 5% 1/16W
R12	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R13	1-216-835-11	s	METAL, CHIP 15K 5% 1/16W
R14	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R15	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R16	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R17	1-216-826-11	s	METAL, CHIP 2.7K 5% 1/16W
R18	1-216-824-11	s	METAL, CHIP 1.8K 5% 1/16W
R19	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R20	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R21	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R22	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R23	1-216-838-11	s	METAL, CHIP 27K 5% 1/16W
R24	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R25	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R26	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R27	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R28	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R29	1-216-840-11	s	METAL, CHIP 39K 5% 1/16W
R32	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R33	1-216-818-11	s	METAL, CHIP 560 5% 1/16W
R101	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R102	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R103	1-216-814-11	s	METAL, CHIP 270 5% 1/16W
R104	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R105	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R106	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W

(AFM-6 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R107	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R108	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R109	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R110	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R111	1-216-805-11	s	METAL, CHIP 47 5% 1/16W
R112	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R113	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R114	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R116	1-216-815-11	s	METAL, CHIP 330 5% 1/16W
R117	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R118	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R119	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R120	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R121	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R122	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R123	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R124	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R126	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R127	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R128	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R129	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R130	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R131	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R132	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R133	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R134	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R135	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R136	1-216-840-11	s	METAL, CHIP 39K 5% 1/16W
R139	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R140	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R141	1-216-814-11	s	METAL, CHIP 270 5% 1/16W
R142	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R143	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R144	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R145	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R146	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R147	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R148	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R149	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R150	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R151	1-216-797-11	s	METAL, CHIP 10 5% 1/16W
R152	1-216-826-11	s	METAL, CHIP 2.7K 5% 1/16W
R153	1-216-826-11	s	METAL, CHIP 2.7K 5% 1/16W
R154	1-216-797-11	s	METAL, CHIP 10 5% 1/16W
R155	1-216-789-11	s	METAL CHIP 2.2 5% 1/16W
R156	1-216-789-11	s	METAL CHIP 2.2 5% 1/16W
R157	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R158	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R159	1-216-789-11	s	METAL CHIP 2.2 5% 1/16W
R160	1-216-789-11	s	METAL CHIP 2.2 5% 1/16W
R161	1-216-864-11	s	METAL, CHIP 0-OHM
R162	1-216-864-11	s	METAL, CHIP 0-OHM
R163	1-216-815-11	s	METAL, CHIP 330 5% 1/16W
R164	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R165	1-216-807-11	s	METAL, CHIP 68 5% 1/16W
R201	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R202	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R203	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R205	1-216-820-11	s	METAL, CHIP 820 5% 1/16W

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(AFM-6 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R206	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R401	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R402	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R403	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R404	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R405	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R406	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R503	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R504	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R505	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R506	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R507	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R508	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R509	1-218-302-11	s	METAL CHIP 8.2K 1% 1/16W
R510	1-218-301-11	s	METAL CHIP 3.9K 1% 1/16W
R511	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R512	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R517	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R518	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R541	1-218-300-11	s	METAL, CHIP 3.3K 1% 1/16W
R542	1-218-299-11	s	METAL, CHIP 2.7K 1% 1/16W
R543	1-218-300-11	s	METAL, CHIP 3.3K 1% 1/16W
R544	1-216-830-11	s	METAL, CHIP 5.6K 5% 1/16W
R546	1-218-301-11	s	METAL CHIP 3.9K 1% 1/16W
R547	1-218-304-11	s	METAL CHIP 12K 1% 1/16W
R548	1-218-297-11	s	METAL, CHIP 680 1% 1/16W
R549	1-218-298-11	s	METAL, CHIP 2.2K 1% 1/16W
R550	1-218-299-11	s	METAL, CHIP 2.7K 1% 1/16W
R551	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R552	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R553	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R554	1-218-299-11	s	METAL, CHIP 2.7K 1% 1/16W
R555	1-218-300-11	s	METAL, CHIP 3.3K 1% 1/16W
R556	1-218-300-11	s	METAL, CHIP 3.3K 1% 1/16W
R557	1-218-304-11	s	METAL CHIP 12K 1% 1/16W
R558	1-218-301-11	s	METAL CHIP 3.9K 1% 1/16W
R560	1-218-298-11	s	METAL, CHIP 2.2K 1% 1/16W
R561	1-218-297-11	s	METAL, CHIP 680 1% 1/16W
R562	1-218-299-11	s	METAL, CHIP 2.7K 1% 1/16W
R563	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R564	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R565	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R572	1-216-830-11	s	METAL, CHIP 5.6K 5% 1/16W
R573	1-216-830-11	s	METAL, CHIP 5.6K 5% 1/16W
R574	1-216-848-11	s	METAL, CHIP 180K 5% 1/16W
R575	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R576	1-216-832-11	s	METAL, CHIP 8.2K 5% 1/16W
R577	1-216-832-11	s	METAL, CHIP 8.2K 5% 1/16W
R578	1-218-318-11	s	METAL, CHIP 5.6K 1% 1/16W
R579	1-218-304-11	s	METAL CHIP 12K 1% 1/16W
R580	1-218-298-11	s	METAL, CHIP 2.2K 1% 1/16W
R581	1-218-322-11	s	METAL, CHIP 47K 1% 1/16W
R582	1-218-322-11	s	METAL, CHIP 47K 1% 1/16W
R583	1-218-315-11	s	METAL, CHIP 1K 1% 1/16W
R584	1-218-303-11	s	METAL, CHIP 10K 1% 1/16W
R585	1-218-318-11	s	METAL, CHIP 5.6K 1% 1/16W
R586	1-218-304-11	s	METAL CHIP 12K 1% 1/16W
R587	1-218-298-11	s	METAL, CHIP 2.2K 1% 1/16W
R588	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W

(AFM-6 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R589	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R590	1-218-315-11	s	METAL, CHIP 1K 1% 1/16W
R591	1-218-303-11	s	METAL, CHIP 10K 1% 1/16W
R601	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R602	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R603	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R604	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R605	1-216-657-11	s	METAL, CHIP 1.8K 0.5% 1/10W
R606	1-216-657-11	s	METAL, CHIP 1.8K 0.5% 1/10W
R607	1-216-657-11	s	METAL, CHIP 1.8K 0.5% 1/10W
R608	1-216-657-11	s	METAL, CHIP 1.8K 0.5% 1/10W
RV1	1-230-868-11	s	RES, ADJ, METAL 2.2K
RV2	1-230-869-11	s	RES, ADJ, METAL 4.7K
RV3	1-230-868-11	s	RES, ADJ, METAL 2.2K
RV4	1-230-874-11	s	RES, ADJ, METAL 100K
RV5	1-230-868-11	s	RES, ADJ, METAL 2.2K
RV6	1-237-034-11	s	RES, ADJ, METAL 2K
RV7	1-237-036-11	s	RES, ADJ, METAL 10K
RV8	1-230-871-11	s	RES, ADJ, METAL 22K
RV10	1-237-032-11	s	RES, ADJ, METAL 500
RV101	1-230-869-11	s	RES, ADJ, METAL 4.7K
RV102	1-230-869-11	s	RES, ADJ, METAL 4.7K
RV103	1-230-869-11	s	RES, ADJ, METAL 4.7K
RV104	1-230-869-11	s	RES, ADJ, METAL 4.7K
RV107	1-230-866-11	s	RES, ADJ, METAL 470
RV501	1-230-869-11	s	RES, ADJ, METAL 4.7K
RV502	1-230-869-11	s	RES, ADJ, METAL 4.7K
RV503	1-237-034-11	s	RES, ADJ, METAL 2K
RV504	1-237-034-11	s	RES, ADJ, METAL 2K
RV505	1-230-869-11	s	RES, ADJ, METAL 4.7K
TH501	1-808-565-21	s	THERMISTOR
TH502	1-808-565-21	s	THERMISTOR

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

AT-49B BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8271-329-B	o	MOUNTED CIRCUIT BOARD, AT-49B
1pc	3-724-713-01	o	PLATE (AT-49), ORNAMENTAL
1pc	3-724-753-01	o	RING
5pcs	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
1pc	7-688-001-12	s	W 2, MIDDLE
3pcs	3-621-124-00	s	SPACER
C15	1-163-251-11	s	CERAMIC 100PF 5% 50V
C16	1-162-637-11	s	CERAMIC, CHIP 0.47uF 16V
C20	1-163-235-11	s	CERAMIC 22PF 5% 50V
C21	1-127-558-11	s	ELECT(SOLID) 10uF 20% 10V
C23	1-163-235-11	s	CERAMIC 22PF 5% 50V
C24	1-127-558-11	s	ELECT(SOLID) 10uF 20% 10V
C25	1-163-239-11	s	CERAMIC 33PF 5% 50V
C26	1-163-239-11	s	CERAMIC 33PF 5% 50V
C40	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C41	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C42	1-131-388-00	s	TANTALUM 68uF 10% 6.3V
C43	1-135-227-11	s	TANTAL 100uF 20% 6.3V
CN1	1-566-960-11	o	CONNECTOR, 50P, MALE
D1	8-719-104-34	s	DIODE 1S2836
D2	8-719-104-34	s	DIODE 1S2836
D3	8-719-800-76	s	DIODE 1SS226
D4	8-719-104-34	s	DIODE 1S2836
IC1	1-807-412-12	s	IC BH-1219A
IC2	1-807-413-11	s	IC BH-1220
IC3	1-807-414-11	s	IC BH-1221
IC4	8-759-200-79	s	IC TC4049BF
IC5	8-759-906-54	s	IC TL064CNS
IC6	8-759-009-05	s	IC MC14051BF
IC7	8-759-101-12	s	IC UPC311G2
IC8	8-759-918-65	s	IC TL7700CPS
IC9	8-759-204-79	s	IC TC40H241F
IC10	8-759-109-70	s	IC UPC4560G2
IC11	8-759-400-89	s	IC MN1237AD
IC12	8-741-100-58	s	IC BX-1179A
IC13	8-759-906-53	s	IC TL062CPS
IC14	8-759-447-43	s	IC HD6305Y0F24P
IC16	8-759-906-53	s	IC TL062CPS
IC17	8-752-330-60	s	IC CXK1012P
Q1	8-729-216-22	s	TRANSISTOR 2SA1162
Q2	8-729-109-44	s	TRANSISTOR 2SK94
Q3	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q6	8-729-216-22	s	TRANSISTOR 2SA1162
Q7	8-729-216-22	s	TRANSISTOR 2SA1162
R48	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R49	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R52	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R72	1-216-657-11	s	METAL, CHIP 1.8K 0.5% 1/10W
R73	1-216-681-11	s	METAL, CHIP 18K 0.5% 1/10W
R94	1-216-692-11	s	METAL, CHIP 51K 0.5% 1/10W
R100	1-249-388-11	s	CARBON 3.9 5% 1/4W
RB1	1-235-813-11	s	COMPOSITION CIRCUIT BLOCK
RB2	1-235-813-11	s	COMPOSITION CIRCUIT BLOCK
RB3	1-231-387-00	s	COMPOSITION CIRCUIT BLOCK
RV1	1-237-035-11	s	RES, ADJ, METAL 5K
RV2	1-228-474-00	s	RES, ADJ, METAL 10K
RV4	1-237-035-11	s	RES, ADJ, METAL 5K
S1	1-570-598-11	o	SWITCH, DIP 4-CKT
S2	1-570-857-11	s	SWITCH, SLIDE
X1	1-567-192-11	s	RESONATOR, CERAMIC 4.00MHz

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

AU-97 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6713-320-A	o	MOUNTED CIRCUIT BOARD, AU-97
1pc	3-729-031-01	o	CASE (AU-1), SHIELD
1pc	3-729-032-03	o	CASE (AU-2), SHIELD
1pc	3-724-704-01	o	PLATE (AU-97), ORNAMENTAL
1pc	3-724-753-01	o	RING
5pcs	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
1pc	7-688-001-12	s	W 2, MIDDLE
C1	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C3	1-126-101-11	s	ELECT 100uF 20% 16V
C5	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C6	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C7	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C8	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C9	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C10	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C11	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C14	1-124-478-11	s	ELECT 100uF 20% 25V
C15	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C16	1-127-495-00	s	ELECT(SOLID) 4.7uF 20% 16V
C18	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C30	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C31	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C32	1-163-263-11	s	CERAMIC 330PF 5% 50V
C34	1-109-631-00	s	MICA 330PF 2% 500V
C102	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C104	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C105	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C106	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C111	1-163-227-11	s	CERAMIC 10PF 5% 50V
C113	1-163-011-11	s	CERAMIC, CHIP 0.0015uF 10% 50V
C114	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C120	1-163-251-11	s	CERAMIC 100PF 5% 50V
C121	1-163-227-11	s	CERAMIC 10PF 5% 50V
C123	1-163-011-11	s	CERAMIC, CHIP 0.0015uF 10% 50V
C124	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C125	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C131	1-163-018-00	s	CERAMIC, CHIP 0.0056uF 5% 50V
C134	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C136	1-163-251-11	s	CERAMIC 100PF 5% 50V
C138	1-109-631-00	s	MICA 330PF 2% 500V
C202	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C204	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C211	1-163-227-11	s	CERAMIC 10PF 5% 50V
C213	1-163-011-11	s	CERAMIC, CHIP 0.0015uF 10% 50V
C214	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C220	1-163-251-11	s	CERAMIC 100PF 5% 50V
C221	1-163-227-11	s	CERAMIC 10PF 5% 50V
C223	1-163-011-11	s	CERAMIC, CHIP 0.0015uF 10% 50V
C224	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C225	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C231	1-163-018-00	s	CERAMIC, CHIP 0.0056uF 5% 50V
C234	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C236	1-163-251-11	s	CERAMIC 100PF 5% 50V
C238	1-109-631-00	s	MICA 330PF 2% 500V
C304	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C306	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C308	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C309	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V

(AU-97 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C404	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C406	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C408	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C409	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
CN1	1-566-960-11	o	CONNECTOR, 50P, MALE
CT1	1-459-865-11	s	COIL, VAR 3.4mH
CV131	1-141-393-11	s	CAP, TRIMMER 100PF
CV231	1-141-393-11	s	CAP, TRIMMER 100PF
D1	8-719-941-86	s	DIODE DAN202U
D101	8-719-941-23	s	DIODE DA204U
D201	8-719-941-23	s	DIODE DA204U
IC1	8-757-991-00	s	IC CX-7991
IC2	8-759-095-59	s	IC M5237ML
IC102	8-741-148-90	s	IC SBX1489-01
IC111	8-759-702-06	s	IC NJM064M
IC112	8-759-300-71	s	IC MC14053BF
IC131	8-759-702-02	s	IC NJM062M
IC211	8-759-702-06	s	IC NJM064M
IC301	8-759-981-58	s	IC RC2043MD
IC302	8-759-300-71	s	IC MC14053BF
IC401	8-759-981-58	s	IC RC2043MD
L1	1-408-429-00	s	INDUCTOR 470uH
L3	1-412-279-31	s	INDUCTOR 270uH
L4	1-412-279-31	s	INDUCTOR 270uH
L5	1-412-279-31	s	INDUCTOR 270uH
L6	1-408-421-00	s	INDUCTOR 100uH
LV111	1-410-854-12	s	COIL, VAR 18mH
LV121	1-410-854-12	s	COIL, VAR 18mH
LV131	1-410-853-12	s	COIL, VAR 4.5mH
LV211	1-410-854-12	s	COIL, VAR 18mH
LV221	1-410-854-12	s	COIL, VAR 18mH
LV231	1-410-853-12	s	COIL, VAR 4.5mH
Q1	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q2	8-729-905-18	s	TRANSISTOR DTC144EU
Q3	8-729-905-18	s	TRANSISTOR DTC144EU
Q4	8-729-905-12	s	TRANSISTOR DTA144EU
Q8	8-729-905-12	s	TRANSISTOR DTA144EU
Q9	8-729-141-75	s	TRANSISTOR 2SD596DV345
Q10	8-729-141-75	s	TRANSISTOR 2SD596DV345
Q11	8-729-905-12	s	TRANSISTOR DTA144EU
Q12	8-729-141-75	s	TRANSISTOR 2SD596DV345
Q13	8-729-141-75	s	TRANSISTOR 2SD596DV345
Q14	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q15	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q16	8-729-901-46	s	TRANSISTOR DTA114YK
Q17	8-729-905-18	s	TRANSISTOR DTC144EU
Q18	8-729-101-07	s	TRANSISTOR 2SB798
Q131	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q132	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q231	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q232	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q302	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q402	8-729-209-07	s	TRANSISTOR 2SC4213-B
R1	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R2	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(AU-97 BOARD)

Ref. No. or Q' ty	Part No.	SP	Description
R3	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R4	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R5	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R6	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R7	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R8	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R12	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R13	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R16	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R17	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R18	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R22	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R23	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R25	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R26	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R30	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R31	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R32	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R33	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R34	1-216-685-11	s	METAL, CHIP 27K 0.5% 1/10W
R35	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R36	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R37	1-216-835-11	s	METAL, CHIP 15K 5% 1/16W
R38	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R39	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R40	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R111	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R112	1-216-844-11	s	METAL, CHIP 82K 5% 1/16W
R113	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R114	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R115	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R116	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R117	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R118	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R120	1-216-844-11	s	METAL, CHIP 82K 5% 1/16W
R121	1-216-844-11	s	METAL, CHIP 82K 5% 1/16W
R122	1-216-851-11	s	METAL, CHIP 330K 5% 1/16W
R123	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R124	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R125	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R126	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R127	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R128	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R131	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R132	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R133	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R134	1-216-847-11	s	METAL, CHIP 150K 5% 1/16W
R135	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R136	1-218-305-11	s	METAL, CHIP 22K 1% 1/16W
R137	1-218-296-11	s	METAL CHIP 75K 5% 1/16W
R138	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R139	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R140	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R141	1-216-835-11	s	METAL, CHIP 15K 5% 1/16W
R142	1-218-306-11	s	METAL CHIP 100K 1% 1/16W
R143	1-218-306-11	s	METAL CHIP 100K 1% 1/16W
R211	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R212	1-216-844-11	s	METAL, CHIP 82K 5% 1/16W
R213	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W

(AU-97 BOARD)

Ref. No. or Q' ty	Part No.	SP	Description
R214	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R215	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R216	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R217	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R218	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R220	1-216-844-11	s	METAL, CHIP 82K 5% 1/16W
R221	1-216-844-11	s	METAL, CHIP 82K 5% 1/16W
R222	1-216-851-11	s	METAL, CHIP 330K 5% 1/16W
R223	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R224	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R225	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R226	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R227	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R228	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R231	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R232	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R233	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R234	1-216-847-11	s	METAL, CHIP 150K 5% 1/16W
R235	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R236	1-218-305-11	s	METAL, CHIP 22K 1% 1/16W
R237	1-218-296-11	s	METAL CHIP 75K 5% 1/16W
R238	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R239	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R240	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R241	1-216-835-11	s	METAL, CHIP 15K 5% 1/16W
R242	1-218-306-11	s	METAL CHIP 100K 1% 1/16W
R243	1-218-306-11	s	METAL CHIP 100K 1% 1/16W
R301	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R302	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R303	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R304	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R305	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R306	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R307	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R308	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R309	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R310	1-216-685-11	s	METAL, CHIP 27K 0.5% 1/10W
R311	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R312	1-216-679-11	s	METAL, CHIP 15K 0.5% 1/10W
R319	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R401	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R402	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R403	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R404	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R405	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R406	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R407	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R408	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R409	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R410	1-216-685-11	s	METAL, CHIP 27K 0.5% 1/10W
R411	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R412	1-216-679-11	s	METAL, CHIP 15K 0.5% 1/10W
R419	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
RV1	1-237-031-11	s	RES, ADJ, METAL 200
RV2	1-237-032-11	s	RES, ADJ, METAL 500
RV101	1-237-036-11	s	RES, ADJ, METAL 10K
RV111	1-230-869-11	s	RES, ADJ, METAL 4.7K
RV112	1-237-037-11	s	RES, ADJ, METAL 20K

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(AU-97 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
RV113	1-237-036-11	s	RES, ADJ, METAL 10K
RV121	1-230-869-11	s	RES, ADJ, METAL 4.7K
RV122	1-237-037-11	s	RES, ADJ, METAL 20K
RV123	1-237-036-11	s	RES, ADJ, METAL 10K
RV201	1-237-036-11	s	RES, ADJ, METAL 10K
RV211	1-230-869-11	s	RES, ADJ, METAL 4.7K
RV212	1-237-037-11	s	RES, ADJ, METAL 20K
RV221	1-230-869-11	s	RES, ADJ, METAL 4.7K
RV222	1-237-037-11	s	RES, ADJ, METAL 20K
RV302	1-237-035-11	s	RES, ADJ, METAL 5K
RV303	1-237-036-11	s	RES, ADJ, METAL 10K
RV402	1-237-035-11	s	RES, ADJ, METAL 5K
RV403	1-237-036-11	s	RES, ADJ, METAL 10K

CN-400 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-634-967-11	o	PRINTED CIRCUIT BOARD, CN-400
CN1	1-565-146-11	o	PIN, CONNECTOR (STRAIGHT) 13P
CN3	1-565-144-11	o	CONNECTOR, 11P, MALE
CN4	1-565-142-11	o	PIN, CONNECTOR (STRAIGHT) 9P

CN-771 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-565-164-21	o	CONTACT, FEMALE, AWG26-28
2pcs	1-566-987-11	o	CONTACT, AWG28-32
1pc	1-580-599-11	o	CONTACT, FEMALE, AWG26-30
1pc	1-643-707-11	o	PRINTED CIRCUIT BOARD, CN-771
1pc	3-177-365-01	o	SHEET (CN), INSULATING
1pc	3-742-205-02	o	BRACKET, CN
2pcs	7-627-553-47	s	SCREW,PRECISION +P 2X4
C1	1-135-160-21	s	TANTAL 15uF 10% 16V
CN1	1-580-581-11	o	HOUSING, 10P
CN2	1-565-121-11	o	HOUSING, CONNECTOR 2P
CN11	1-580-564-11	o	PIN, CONNECTOR (PC BOARD) 18P
CN12	1-565-142-11	o	PIN, CONNECTOR (STRAIGHT) 9P
CN13	1-565-151-11	o	CONNECTOR, 4P, MALE
CN14	1-565-151-11	o	CONNECTOR, 4P, MALE
JR1	1-217-666-11	s	RES, SHORTING 0.01 1/6W
Q1	8-729-923-77	s	TRANSISTOR DTA114WK
Q2	8-729-923-77	s	TRANSISTOR DTA114WK
R1	1-216-663-11	s	METAL, CHIP 3.3K 0.5% 1/10W
R2	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R3	1-216-663-11	s	METAL, CHIP 3.3K 0.5% 1/10W
R4	1-216-673-11	s	METAL, CHIP 8.2K 0.5% 1/10W
W12	1-568-815-11	o	HOUSING, 9P
W15	1-566-988-11	o	HOUSING, CONNECTOR 2P

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

DR-124 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-7515-144-A	o	MOUNTED CIRCUIT BOARD, DR-124
C1	1-131-353-00	s	TANTALUM 10uF 10% 35V
C2	1-131-353-00	s	TANTALUM 10uF 10% 35V
C7	1-131-353-00	s	TANTALUM 10uF 10% 35V
C8	1-124-556-11	s	ELECT 2200uF 20% 16V
C9	1-126-176-11	s	ELECT 220uF 20% 10V
C10	1-124-556-11	s	ELECT 2200uF 20% 16V
C12	1-126-103-11	s	ELECT 470uF 20% 16V
C13	1-131-347-00	s	TANTALUM 1uF 10% 35V
C14	1-131-347-00	s	TANTALUM 1uF 10% 35V
C15	1-131-347-00	s	TANTALUM 1uF 10% 35V
C16	1-131-347-00	s	TANTALUM 1uF 10% 35V
C17	1-131-347-00	s	TANTALUM 1uF 10% 35V
C18	1-131-347-00	s	TANTALUM 1uF 10% 35V
C19	1-131-347-00	s	TANTALUM 1uF 10% 35V
C20	1-131-377-00	s	TANTALUM 10uF 10% 10V
C21	1-124-478-11	s	ELECT 100uF 20% 25V
C22	1-131-353-00	s	TANTALUM 10uF 10% 35V
C24	1-163-235-11	s	CERAMIC 22PF 5% 50V
C26	1-131-367-00	s	TANTALUM 22uF 10% 20V
C28	1-126-233-11	s	ELECT 22uF 20% 50V
C29	1-126-233-11	s	ELECT 22uF 20% 50V
C30	1-124-122-11	s	ELECT 100 20% 50V
C31	1-135-136-21	s	TANTALUM 6.8uF 10% 35V
C35	1-124-242-00	s	ELECT 33uF 20% 25V
C36	1-131-347-00	s	TANTALUM 1uF 10% 35V
C41	1-163-251-11	s	CERAMIC 100PF 5% 50V
C43	1-135-136-21	s	TANTALUM 6.8uF 10% 35V
CN1	1-569-606-11	o	CONNECTOR, 40P, MALE
CN2	1-566-573-11	o	CONNECTOR, 25P, FEMALE
CN3	1-506-474-11	o	CONNECTOR, 9P, MALE
D1	8-719-104-34	s	DIODE 1S2836
D3	8-719-104-34	s	DIODE 1S2836
D4	8-719-104-34	s	DIODE 1S2836
D5	8-719-104-34	s	DIODE 1S2836
D6	8-719-104-34	s	DIODE 1S2836
D7	8-719-800-76	s	DIODE 1SS226
D9	8-719-104-34	s	DIODE 1S2836
D10	8-719-105-99	s	DIODE RD6.2M-B1
D11	8-719-104-34	s	DIODE 1S2836
D12	8-719-104-34	s	DIODE 1S2836
D13	8-719-104-34	s	DIODE 1S2836
D14	8-719-981-01	s	DIODE ERA81-004
D15	8-719-981-01	s	DIODE ERA81-004
D16	8-719-800-76	s	DIODE 1SS226
IC2	8-759-926-48	s	IC SN74HC244ANS
IC3	8-752-031-03	s	IC CXA1065M
IC4	8-752-031-03	s	IC CXA1065M
IC5	8-752-031-03	s	IC CXA1065M
IC6	8-752-031-03	s	IC CXA1065M
IC7	8-759-234-20	s	IC TC7S08F
Q1	8-729-216-22	s	TRANSISTOR 2SA1162
Q2	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4	8-729-216-22	s	TRANSISTOR 2SA1162
Q5	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q6	8-729-216-22	s	TRANSISTOR 2SA1162
Q7	8-729-143-43	s	TRANSISTOR 2SA1463IK
Q8	8-729-119-59	s	TRANSISTOR 2SK612-Z
Q9	8-729-143-43	s	TRANSISTOR 2SA1463IK
Q10	8-729-119-59	s	TRANSISTOR 2SK612-Z
Q12	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q13	8-729-101-00	s	TRANSISTOR NTM2369
Q14	8-729-112-65	s	TRANSISTOR 2SA1462
Q15	8-729-112-65	s	TRANSISTOR 2SA1462
Q16	8-729-101-00	s	TRANSISTOR NTM2369
Q19	8-729-122-63	s	TRANSISTOR 2SA1226
Q20	8-729-421-71	s	TRANSISTOR 2SK620
Q21	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q22	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q23	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q24	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q25	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q26	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q27	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
R1	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W
R58	1-216-668-11	s	METAL, CHIP 5.1K 0.5% 1/10W
RV1	1-237-037-11	s	RES, ADJ, METAL 20K
RV2	1-237-037-11	s	RES, ADJ, METAL 20K
RV3	1-237-037-11	s	RES, ADJ, METAL 20K

DUS-246 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-625-969-11	o	PRINTED CIRCUIT BOARD, DUS-246

DUS-297 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-124-440-11	s	ELECT 3300uF 20% 25V

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

EN-79U BOARD

Ref. No. or Q' ty	Part No.	SP	Description
1pc	A-7513-949-A	o	MOUNTED CIRCUIT BOARD EN-79U (UC)
1pc	A-7513-950-A	o	MOUNTED CIRCUIT BOARD, EN-79 (J)
1pc	3-724-709-01	o	PLATE (EN-62), ORNAMENTAL
1pc	3-724-753-01	o	RING
5pcs	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
1pc	7-688-001-12	s	W 2, MIDDLE
5pcs	3-621-124-00	s	SPACER
C3	1-163-239-11	s	CERAMIC 33PF 5% 50V
C4	1-163-086-00	s	CERAMIC, CHIP 3PF 50V
C5	1-163-086-00	s	CERAMIC, CHIP 3PF 50V
C6	1-163-086-00	s	CERAMIC, CHIP 3PF 50V
C7	1-163-243-11	s	CERAMIC 47PF 5% 50V
C25	1-135-157-21	s	TANTAL 10uF 10% 6.3V
C26	1-135-157-21	s	TANTAL 10uF 10% 6.3V
C27	1-163-251-11	s	CERAMIC 100PF 5% 50V
C28	1-163-127-00	s	CERAMIC, CHIP 270PF 5% 50V
C30	1-135-180-21	s	TANTAL 3.3uF 20% 6.3V
C34	1-163-084-00	s	CERAMIC, CHIP 1.5PF 50V
C39	1-163-251-11	s	CERAMIC 100PF 5% 50V
C40	1-163-127-00	s	CERAMIC, CHIP 270PF 5% 50V
C42	1-135-180-21	s	TANTAL 3.3uF 20% 6.3V
C44	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C50	1-163-251-11	s	CERAMIC 100PF 5% 50V
C51	1-163-245-11	s	CERAMIC 56PF 5% 50V
C53	1-135-162-21	s	TANTAL 33uF 10% 6.3V
C58	1-163-251-11	s	CERAMIC 100PF 5% 50V
C59	1-163-115-00	s	CERAMIC, CHIP 82PF 5% 50V
C62	1-135-180-21	s	TANTAL 3.3uF 20% 6.3V
C63	1-135-180-21	s	TANTAL 3.3uF 20% 6.3V
C64	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C68	1-135-158-21	s	TANTALUM 15uF 10% 4V
C70	1-163-217-11	s	CERAMIC 1PF 0.25PF 50V
C76	1-163-227-11	s	CERAMIC 10PF 5% 50V
CN1	1-566-960-11	o	CONNECTOR, 50P, MALE
CV1	1-141-422-11	s	CAP, ADJ
D2	8-719-800-76	s	DIODE 1SS226
DL1	1-415-562-11	s	DELAY LINE 338nS
FL3	1-235-161-00	s	FILTER, BANDPASS 3.58MHz
IC1	8-759-300-71	s	IC MC14053BF
IC2	8-759-911-77	s	IC CX-7968A
IC3	1-807-421-11	s	IC BH-1216
IC4	1-807-419-11	s	IC BH-1214
IC5	1-807-418-11	s	IC BH-1213
IC7	8-741-135-60	s	IC BX-1356
IC8	8-759-906-59	s	IC CX22017
IC9	8-759-200-79	s	IC TC4049BF
IC10	1-807-423-11	s	IC BH-1218
L1	1-408-785-21	s	CHIP 47uH
L4	1-408-785-21	s	CHIP 47uH
L5	1-410-715-31	s	INDUCTOR, CHIP 68uH
L6	1-410-715-31	s	INDUCTOR, CHIP 68uH
L7	1-408-785-21	s	CHIP 47uH
LV2	1-408-844-00	s	INDUCTOR, VAR, 22uH

(EN-79U BOARD)

Ref. No. or Q' ty	Part No.	SP	Description
Q1	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q2	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4	8-729-216-22	s	TRANSISTOR 2SA1162
Q5	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q10	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q11	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q12	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q13	8-729-122-63	s	TRANSISTOR 2SA1226
Q14	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q15	8-729-216-22	s	TRANSISTOR 2SA1162
Q18	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q19	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q20	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q21	8-729-122-63	s	TRANSISTOR 2SA1226
Q22	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q23	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q24	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q25	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q26	8-729-141-48	s	TRANSISTOR 2SB624-BV345
Q27	8-729-141-48	s	TRANSISTOR 2SB624-BV345
Q28	8-729-141-48	s	TRANSISTOR 2SB624-BV345
Q29	8-729-141-75	s	TRANSISTOR 2SD596DV345
Q30	8-729-216-22	s	TRANSISTOR 2SA1162
Q31	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q32	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q33	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q34	8-729-216-22	s	TRANSISTOR 2SA1162
Q35	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q36	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
R17	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
R18	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
R19	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
R23	1-216-673-11	s	METAL, CHIP 8.2K 0.5% 1/10W
R24	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
R25	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
R26	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R27	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R28	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R33	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
R34	1-216-681-11	s	METAL, CHIP 18K 0.5% 1/10W
R35	1-216-662-11	s	METAL, CHIP 3K 0.5% 1/10W
R36	1-216-661-11	s	METAL, CHIP 2.7K 0.5% 1/10W
R37	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R38	1-216-623-11	s	METAL, CHIP 68 0.5% 1/10W
R44	1-216-663-11	s	METAL, CHIP 3.3K 0.5% 1/10W
R45	1-216-647-11	s	METAL, CHIP 680 0.5% 1/10W
R46	1-216-661-11	s	METAL, CHIP 2.7K 0.5% 1/10W
R51	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R60	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R64	1-216-633-11	s	METAL, CHIP 180 0.5% 1/10W
R69	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R71	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R75	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R76	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R77	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R78	1-216-638-11	s	METAL, CHIP 300 0.5% 1/10W
R79	1-216-638-11	s	METAL, CHIP 300 0.5% 1/10W
R83	1-216-653-11	s	METAL, CHIP 1.2K 0.5% 1/10W

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(EN-79U BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R84	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R85	1-216-647-11	s	METAL, CHIP 680 0.5% 1/10W
R88	1-216-666-11	s	METAL, CHIP 4.3K 0.5% 1/10W
R89	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R90	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R91	1-216-633-11	s	METAL, CHIP 180 0.5% 1/10W
R99	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R102	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R105	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R106	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R107	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R113	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R114	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R121	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R122	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R129	1-216-663-11	s	METAL, CHIP 3.3K 0.5% 1/10W
R135	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R141	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R143	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R144	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R145	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R148	1-216-668-11	s	METAL, CHIP 5.1K 0.5% 1/10W
R149	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R152	1-216-639-11	s	METAL, CHIP 330 0.5% 1/10W
R157	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
RB1	1-239-024-11	s	MATRIX RESISTOR
RB2	1-239-025-11	s	MATRIX RESISTOR
RB3	1-239-026-11	s	MATRIX RESISTOR
RV1	1-237-034-11	s	RES, ADJ, METAL 2K
RV2	1-237-034-11	s	RES, ADJ, METAL 2K
RV3	1-237-034-11	s	RES, ADJ, METAL 2K
RV4	1-237-036-11	s	RES, ADJ, METAL 10K
RV5	1-237-035-11	s	RES, ADJ, METAL 5K
RV6	1-237-036-11	s	RES, ADJ, METAL 10K
RV8	1-237-034-11	s	RES, ADJ, METAL 2K
RV9	1-228-473-00	s	RES, ADJ, METAL 5K
RV10	1-228-473-00	s	RES, ADJ, METAL 5K
RV11	1-237-033-11	s	RES, ADJ, METAL 1K
RV12	1-237-033-11	s	RES, ADJ, METAL 1K
RV13	1-237-036-11	s	RES, ADJ, METAL 10K
RV14	1-237-037-11	s	RES, ADJ, METAL 20K
RV15	1-237-034-11	s	RES, ADJ, METAL 2K
RV17	1-228-473-00	s	RES, ADJ, METAL 5K
RV18	1-237-033-11	s	RES, ADJ, METAL 1K
RV19	1-237-033-11	s	RES, ADJ, METAL 1K
RV20	1-237-032-11	s	RES, ADJ, METAL 500
RV21	1-237-032-11	s	RES, ADJ, METAL 500
S1	1-570-857-11	s	SWITCH, SLIDE
S2	1-570-857-11	s	SWITCH, SLIDE
S3	1-570-375-12	s	SWITCH, SLIDE

EX-148 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-7520-314-A	o	MOUNTED CIRCUIT BOARD, EX-148
4pcs	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
CN1	1-566-960-11	o	CONNECTOR, 50P, MALE
CN2	1-566-961-11	o	CONNECTOR, 50P, FEMALE

FE-4 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6725-603-A	o	MOUNTED CIRCUIT BOARD, FE-4
1pc	3-722-419-01	o	HOLDER, FE-4
2pcs	3-729-013-21	s	SCREW(M1.4X2.5),WASHERHEAD(+P)
C1	1-136-562-11	s	FILM 0.0082uF 5% 200V
C5	1-126-101-11	s	ELECT 100uF 20% 16V
C8	1-163-018-00	s	CERAMIC, CHIP 0.0056uF 5% 50V
C11	1-164-756-11	s	CERAMIC, CHIP 0.0033uF 5% 50V
C12	1-164-756-11	s	CERAMIC, CHIP 0.0033uF 5% 50V
C15	1-163-001-11	s	CERAMIC 220PF 10% 50V
C16	1-126-157-11	s	ELECT 10uF 20% 16V
CN1	1-566-977-11	o	CONNECTOR, 12P, MALE
CP1	1-424-511-11	s	TRANSFORMER, FE
CS1	1-810-462-11	s	SENSOR, DEW CONDENSATION
IC1	8-759-805-32	s	IC LA7205M
L1	1-464-909-11	s	COIL, SENSOR
L2	1-408-429-00	s	INDUCTOR 470uH
Q1	8-729-141-75	s	TRANSISTOR 2SD596DV345
Q2	8-729-141-75	s	TRANSISTOR 2SD596DV345
R3	1-216-685-11	s	METAL, CHIP 27K 0.5% 1/10W
R4	1-216-685-11	s	METAL, CHIP 27K 0.5% 1/10W

FL-45 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-625-891-13	s	PRINTED CIRCUIT BOARD, FL-45 FLEXIB

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

FL-46 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-625-892-13	s	PRINTED CIRCUIT BOARD, FL-46 FLEXIB

FL-55 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6713-332-A	o	MOUNTED CIRCUIT BOARD, FL-55
C1	1-163-263-11	s	CERAMIC 330PF 5% 50V
C4	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C11	1-163-263-11	s	CERAMIC 330PF 5% 50V
D1	8-719-941-09	s	DIODE DAP202U
IC1	8-759-981-54	s	IC RC2041MD
Q1	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q2	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q11	8-729-209-07	s	TRANSISTOR 2SC4213-B
R1	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R11	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
RV1	1-228-478-11	s	RES, ADJ, METAL 200K
RV11	1-228-478-11	s	RES, ADJ, METAL 200K
RY1	1-515-614-21	s	RELAY

FL-57 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-625-895-11	s	PRINTED CIRCUIT BOARD, FL-57 FLEXIB Serial No. UP To 10147 (BVW-400A;UC) Serial No. UP To 30180 (BVW-400A;J)
1pc	1-625-895-21	s	PRINTED CIRCUIT BOARD, FL-57 FLEXIB Serial No. 10148 AND HIGHER (BVW-400A;UC) Serial No. 30181 AND HIGHER (BVW-400A;J)
C1	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V

HP-43 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-569-193-11	s	CONTACT
1pc	1-569-196-11	o	HOUSING, 3P
1pc	1-627-593-11	o	PRINTED CIRCUIT BOARD, HP-43
C1	1-162-773-11	s	CERAMIC 0.0047uF 5% 50V
C2	1-162-773-11	s	CERAMIC 0.0047uF 5% 50V
J1	1-507-980-21	s	JACK
R1	1-249-395-11	s	CARBON 15 5% 1/4W
R2	1-249-395-11	s	CARBON 15 5% 1/4W

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

IE-30 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-7515-150-A	o	MOUNTED CIRCUIT BOARD, IE-30 (including IE-31 board)
1pc	3-724-712-02	o	PLATE (IE-20), ORNAMENTAL
1pc	3-724-753-01	o	RING
5pcs	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
1pc	7-688-001-12	s	W 2, MIDDLE
C7	1-124-282-00	s	ELECT, NONPOLAR 22uF 20% 25V
C8	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C9	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C16	1-163-239-11	s	CERAMIC 33PF 5% 50V
C17	1-135-125-21	s	TANTALUM, CHIP 33uF 20% 10V
C18	1-135-125-21	s	TANTALUM, CHIP 33uF 20% 10V
C19	1-163-239-11	s	CERAMIC 33PF 5% 50V
C20	1-163-227-11	s	CERAMIC 10PF 5% 50V
C26	1-163-227-11	s	CERAMIC 10PF 5% 50V
C31	1-163-239-11	s	CERAMIC 33PF 5% 50V
C32	1-135-125-21	s	TANTALUM, CHIP 33uF 20% 10V
C33	1-135-125-21	s	TANTALUM, CHIP 33uF 20% 10V
C34	1-163-239-11	s	CERAMIC 33PF 5% 50V
C35	1-135-125-21	s	TANTALUM, CHIP 33uF 20% 10V
C37	1-163-099-00	s	CERAMIC, CHIP 18PF 5% 50V
C45	1-164-330-21	s	CERAMIC 0.22uF 10% 16V
C48	1-162-637-11	s	CERAMIC, CHIP 0.47uF 16V
C57	1-163-251-11	s	CERAMIC 100PF 5% 50V
C71	1-124-584-00	s	ELECT 100uF 20% 10V
C72	1-163-116-00	s	CERAMIC, CHIP 91PF 5% 50V
C76	1-163-081-00	s	CERAMIC, CHIP 0.22uF 25V
C79	1-163-235-11	s	CERAMIC 22PF 5% 50V
C82	1-135-125-21	s	TANTALUM, CHIP 33uF 20% 10V
C84	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C85	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C86	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C87	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C93	1-135-125-21	s	TANTALUM, CHIP 33uF 20% 10V
C97	1-124-584-00	s	ELECT 100uF 20% 10V
C98	1-124-286-00	s	ELECT 33uF 20% 10V
C99	1-163-229-11	s	CERAMIC 12PF 5% 50V
C100	1-163-235-11	s	CERAMIC 22PF 5% 50V
C101	1-131-379-00	s	TANTALUM 22uF 10% 10V
C102	1-163-222-11	s	CERAMIC 5PF 0.25PF 50V
C106	1-163-239-11	s	CERAMIC 33PF 5% 50V
CN1	1-566-960-11	o	CONNECTOR, 50P, MALE
CV1	1-141-448-21	s	CAP, ADJ
CV2	1-141-423-61	s	CAP, ADJ
CV3	1-141-423-61	s	CAP, ADJ
D1	8-719-800-76	s	DIODE 1SS226
D2	8-719-400-18	s	DIODE MA152WK
D3	8-719-400-18	s	DIODE MA152WK
D4	8-719-948-47	s	DIODE HSM88AS
D5	8-719-948-47	s	DIODE HSM88AS
D6	8-719-800-76	s	DIODE 1SS226
D7	8-719-104-34	s	DIODE 1S2836
D8	8-719-948-47	s	DIODE HSM88AS
D9	8-719-948-47	s	DIODE HSM88AS
DL1	1-415-755-11	s	DELAY LINE
DL2	1-415-485-11	s	120nS+6nS

(IE-30 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
IC1	8-759-981-51	s	IC RC1496M
IC4	8-759-906-53	s	IC TL062CPS
IC5	1-807-422-11	s	IC BH-1217
IC6	8-759-906-53	s	IC TL062CPS
IC7	8-759-981-51	s	IC RC1496M
IC8	8-759-009-51	s	IC MC14538BF
IC9	8-759-009-51	s	IC MC14538BF
IC10	8-759-008-79	s	IC MC14011BF
L1	1-408-785-21	s	CHIP 47uH
L4	1-410-717-31	s	INDUCTOR, CHIP 100uH
L5	1-408-777-00	s	CHIP 10uH
L6	1-408-780-21	s	INDUCTOR CHIP 18uH
L7	1-410-717-31	s	INDUCTOR, CHIP 100uH
LV1	1-408-845-00	s	INDUCTOR, VAR, 100uH
Q1	8-729-122-63	s	TRANSISTOR 2SA1226
Q2	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q3	8-729-122-63	s	TRANSISTOR 2SA1226
Q9	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q10	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q11	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q12	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q13	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q14	8-729-122-63	s	TRANSISTOR 2SA1226
Q15	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q21	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q22	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q23	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q24	8-729-122-63	s	TRANSISTOR 2SA1226
Q25	8-729-109-44	s	TRANSISTOR 2SK94
Q26	8-729-109-44	s	TRANSISTOR 2SK94
Q27	8-729-122-63	s	TRANSISTOR 2SA1226
Q28	8-729-122-63	s	TRANSISTOR 2SA1226
Q29	8-729-109-44	s	TRANSISTOR 2SK94
Q30	8-729-109-44	s	TRANSISTOR 2SK94
Q31	8-729-122-63	s	TRANSISTOR 2SA1226
Q32	8-729-122-63	s	TRANSISTOR 2SA1226
Q33	8-729-122-63	s	TRANSISTOR 2SA1226
Q34	8-729-122-63	s	TRANSISTOR 2SA1226
Q35	8-729-122-63	s	TRANSISTOR 2SA1226
Q36	8-729-122-63	s	TRANSISTOR 2SA1226
Q37	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q38	8-729-109-44	s	TRANSISTOR 2SK94
Q41	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q42	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q43	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q44	8-729-109-44	s	TRANSISTOR 2SK94
Q45	8-729-109-44	s	TRANSISTOR 2SK94
Q46	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q47	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q48	8-729-122-63	s	TRANSISTOR 2SA1226
Q49	8-729-122-63	s	TRANSISTOR 2SA1226
Q50	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q51	8-729-122-63	s	TRANSISTOR 2SA1226
Q52	8-729-122-63	s	TRANSISTOR 2SA1226
Q53	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q54	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q56	8-729-122-63	s	TRANSISTOR 2SA1226
Q57	8-729-122-63	s	TRANSISTOR 2SA1226

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(IE-30 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q58	8-729-216-22	s	TRANSISTOR 2SA1162
Q59	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
R7	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R8	1-216-669-11	s	METAL, CHIP 5.6K 0.5% 1/10W
R10	1-216-647-11	s	METAL, CHIP 680 0.5% 1/10W
R13	1-216-641-11	s	METAL, CHIP 390 0.5% 1/10W
R28	1-216-631-11	s	METAL, CHIP 150 0.5% 1/10W
R29	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R32	1-216-634-11	s	METAL, CHIP 200 0.5% 1/10W
R33	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R34	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R45	1-216-639-11	s	METAL, CHIP 330 0.5% 1/10W
R59	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R60	1-216-631-11	s	METAL, CHIP 150 0.5% 1/10W
R63	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R79	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R80	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R81	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R82	1-216-643-11	s	METAL, CHIP 470 0.5% 1/10W
R88	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R89	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R91	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R93	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R94	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R108	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R109	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R110	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R127	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R128	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R129	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R147	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R148	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R161	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W
R162	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R163	1-216-679-11	s	METAL, CHIP 15K 0.5% 1/10W
R164	1-216-678-11	s	METAL, CHIP 13K 0.5% 1/10W
RV1	1-237-034-11	s	RES, ADJ, METAL 2K
RV2	1-237-032-11	s	RES, ADJ, METAL 500
RV3	1-237-035-11	s	RES, ADJ, METAL 5K
RV4	1-228-471-00	s	RES, ADJ, METAT 1K
RV5	1-228-474-00	s	RES, ADJ, METAL 10K
RV6	1-237-035-11	s	RES, ADJ, METAL 5K
RV7	1-228-472-00	s	RES, ADJ, METAL 2K
RV8	1-228-470-00	s	RES, ADJ, METAL 500
RV10	1-237-035-11	s	RES, ADJ, METAL 5K
RV12	1-237-038-11	s	RES, ADJ, METAL 50K
RV13	1-237-032-11	s	RES, ADJ, METAL 500
RV14	1-237-033-11	s	RES, ADJ, METAL 1K
S1	1-570-610-11	s	SWITCH, TOGGLE

IE-31 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-7520-521-A	o	MOUNTED CIRCUIT BOARD, IE-31
C110	1-135-216-11	s	TANTAL 10uF 20% 10V
C113	1-135-177-21	s	TANTALUM CHIP 1uF 10% 25V
C114	1-135-177-21	s	TANTALUM CHIP 1uF 10% 25V
C115	1-135-216-11	s	TANTAL 10uF 20% 10V
C116	1-135-177-21	s	TANTALUM CHIP 1uF 10% 25V
C117	1-163-239-11	s	CERAMIC 33PF 5% 50V
C118	1-135-216-11	s	TANTAL 10uF 20% 10V
CN4	1-566-475-11	o	PIN, SOCKET 3P
CN5	1-566-475-11	o	PIN, SOCKET 3P
D10	8-719-800-76	s	DIODE 1SS226
DL3	1-415-408-11	s	DELAY LINE, DUAL 50nS, 100nS
DL4	1-415-502-11	s	DELAY LINE 100nS
Q65	8-729-122-63	s	TRANSISTOR 2SA1226
Q66	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q67	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q68	8-729-175-73	s	TRANSISTOR 2SC2757
Q69	8-729-175-73	s	TRANSISTOR 2SC2757
Q70	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q71	8-729-175-73	s	TRANSISTOR 2SC2757
Q72	8-729-122-63	s	TRANSISTOR 2SA1226
Q73	8-729-122-63	s	TRANSISTOR 2SA1226
Q74	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q75	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
R203	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R204	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R205	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R207	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R208	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R209	1-216-656-11	s	METAL, CHIP 1.6K 0.5% 1/10W
R211	1-216-657-11	s	METAL, CHIP 1.8K 0.5% 1/10W
R215	1-216-042-00	s	METAL, CHIP 510 5% 1/10W
R217	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R219	1-216-639-11	s	METAL, CHIP 330 0.5% 1/10W
R220	1-216-639-11	s	METAL, CHIP 330 0.5% 1/10W
R221	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R224	1-216-655-11	s	METAL, CHIP 1.5K 0.5% 1/10W
R226	1-216-633-11	s	METAL, CHIP 180 0.5% 1/10W
R227	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R231	1-216-633-11	s	METAL, CHIP 180 0.5% 1/10W
RV17	1-237-032-11	s	RES, ADJ, METAL 500
RV18	1-237-032-11	s	RES, ADJ, METAL 500
RV19	1-237-035-11	s	RES, ADJ, METAL 5K
S2	1-553-510-00	s	SWITCH, SLIDE

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

IF-298A BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8271-331-A	o	MOUNTED CIRCUIT BOARD, IF-298A (UC)
1pc	A-8271-334-A	o	MOUNTED CIRCUIT BOARD, IF-298AJ (J)
1pc	3-176-007-01	o	BRACKET (A), IF
1pc	3-176-008-01	o	BRACKET (B), IF
2pcs	3-742-072-01	o	SPACER (IF)
1pc	3-742-073-11	o	COVER, IF
2pcs	7-621-772-50	s	SCREW +B 2X10
2pcs	7-621-771-06	s	SCREW +B 2X5
2pcs	3-176-009-01	o	SUPPORT (TG)
C11	1-135-216-11	s	TANTAL 10uF 20% 10V
C13	1-135-216-11	s	TANTAL 10uF 20% 10V
C24	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C31	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C32	1-135-216-11	s	TANTAL 10uF 20% 10V
C33	1-135-216-11	s	TANTAL 10uF 20% 10V
CN1	1-506-476-11	o	CONNECTOR, 11P, MALE
CN2	1-565-157-11	o	CONNECTOR, 10P, MALE
CN3	1-565-161-11	o	CONNECTOR, 14P, MALE
CN4	1-565-161-11	o	CONNECTOR, 14P, MALE
CN5	1-506-473-11	o	CONNECTOR, 8P, MALE
D1	8-719-400-18	s	DIODE MA152WK
D2	8-719-109-89	s	DIODE RD5.6ESB2
D3	8-719-400-18	s	DIODE MA152WK
D6	8-719-400-18	s	DIODE MA152WK
D7	8-719-800-76	s	DIODE 1SS226
D8	8-719-400-18	s	DIODE MA152WK
D9	8-719-400-18	s	DIODE MA152WK
D10	8-719-400-18	s	DIODE MA152WK
D11	8-719-104-34	s	DIODE 1S2836
D12	8-719-400-18	s	DIODE MA152WK
D13	8-719-400-18	s	DIODE MA152WK
IC1	8-759-209-97	s	IC TC4S81F
IC2	8-759-101-12	s	IC UPC311G2
IC3	8-741-158-80	s	IC SBX1588-01
IC4	8-741-158-80	s	IC SBX1588-01
IC5	8-741-158-80	s	IC SBX1588-01
IC6	8-759-071-41	s	IC CXD8154BM
IC7	8-759-008-79	s	IC MC14011BF
IC8	8-759-009-19	s	IC MC14081BF
IC9	8-759-009-19	s	IC MC14081BF
IC10	8-759-207-74	s	IC TC4030BFHB
IC11	8-759-209-90	s	IC TC4S71F
IC12	8-759-209-97	s	IC TC4S81F
IC13	8-759-008-82	s	IC MC14013BF
IC14	8-759-209-69	s	IC TC4S11F
IC15	8-759-234-13	s	IC TC4S30F
IC16	8-759-209-57	s	IC TC4S69F
IC17	8-759-209-57	s	IC TC4S69F
L1	1-408-785-21	s	CHIP 47uH
Q1	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q2	8-729-141-48	s	TRANSISTOR 2SB624-BV345
Q4	8-729-141-75	s	TRANSISTOR 2SD596DV345
Q5	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q6	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q7	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q8	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q9	8-729-216-22	s	TRANSISTOR 2SA1162
Q11	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q12	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q13	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
R1	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R8	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R9	1-216-620-11	s	METAL, CHIP 51 0.5% 1/10W
R10	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R11	1-216-649-11	s	METAL, CHIP 820 0.5% 1/10W
R14	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R15	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R16	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R22	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R23	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R24	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R28	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R29	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R30	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R40	1-216-663-11	s	METAL, CHIP 3.3K 0.5% 1/10W
R41	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R42	1-216-660-11	s	METAL, CHIP 2.4K 0.5% 1/10W
R53	1-218-761-11	s	METAL 240K 0.50% 1/10W
R54	1-218-769-11	s	METAL 510K 0.50% 1/10W
R64	1-218-769-11	s	METAL 510K 0.50% 1/10W
R66	1-216-668-11	s	METAL, CHIP 5.1K 0.5% 1/10W
R69	1-216-670-11	s	METAL, CHIP 6.2K 0.5% 1/10W (J)
R70	1-216-670-11	s	METAL, CHIP 6.2K 0.5% 1/10W (J)
S1	1-570-857-11	s	SWITCH, SLIDE
S2	1-570-857-11	s	SWITCH, SLIDE
S3	1-570-857-11	s	SWITCH, SLIDE
S4	1-570-857-11	s	SWITCH, SLIDE
S5	1-570-857-11	s	SWITCH, SLIDE
S6	1-570-857-11	s	SWITCH, SLIDE
S7	1-553-510-00	s	SWITCH, SLIDE
S8	1-553-510-00	s	SWITCH, SLIDE
T1	1-427-613-11	s	TRANSFORMER, AUDIO INPUT OUTPUT

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

KY-124 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-625-549-11	o	PRINTED CIRCUIT BOARD, KY-124
CN1	1-565-143-11	o	CONNECTOR, 10P, MALE
D1	8-719-049-48	s	DIODE LT1D11A
D2	8-719-049-48	s	DIODE LT1D11A
D3	8-719-049-48	s	DIODE LT1D11A
S1	1-554-371-51	s	SWITCH, TACTILE
S2	1-554-371-51	s	SWITCH, TACTILE
S3	1-554-371-51	s	SWITCH, TACTILE
S4	1-554-371-51	s	SWITCH, TACTILE
S5	1-554-371-51	s	SWITCH, TACTILE

LD-21 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6725-602-A	o	MOUNTED CIRCUIT BOARD, LD-21
1pc	3-723-091-01	o	HOLDER, TOP SENSOR
CN1	1-506-471-11	o	CONNECTOR, 6P, MALE
D1	8-719-106-36	s	DIODE RD8.2M-B3
IC1	8-759-948-05	s	IC BA6229
L1	1-408-773-31	s	INDUCTOR CHIP 4.7uH
L2	1-408-773-31	s	INDUCTOR CHIP 4.7uH
L11	1-464-909-21	s	COIL, SENSOR
Q1	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6

LP-64 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-643-704-11	o	PRINTED CIRCUIT BOARD, LP-64
D1	8-719-026-39	s	DIODE CL-150UR-CD

LP-65 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-643-705-11	o	PRINTED CIRCUIT BOARD, LP-65
D1	8-719-026-16	s	DIODE CL-150D-CD
D2	8-719-026-39	s	DIODE CL-150UR-CD
D3	8-719-026-16	s	DIODE CL-150D-CD

LP-66 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-562-147-11	s	HOUSING, 2P
1pc	1-562-735-11	o	HOUSING, 2P
1pc	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
1pc	1-564-832-11	o	CONTACT
1pc	1-643-706-11	o	PRINTED CIRCUIT BOARD, LP-66
1pc	3-722-474-05	o	BRACKET, LP
2pcs	7-627-556-37	s	SCREW,PRECISION +P2.6X4 TYPE 1
D1	8-719-950-44	s	DIODE GL-5LR40,RED
D2	8-719-950-44	s	DIODE GL-5LR40,RED

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

MB-317 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-7515-151-A	o	MOUNTED CIRCUIT BOARD, MB-317
1pc	3-190-329-01	s	SPACER
26pcs	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
2pcs	3-722-391-01	o	HOLDER, GP2S09
C2	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C3	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C4	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C5	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C61	1-162-568-11	s	CERAMIC, CHIP 0.33uF 25V
C62	1-162-568-11	s	CERAMIC, CHIP 0.33uF 25V
C64	1-163-143-00	s	CERAMIC, CHIP 0.0012uF 5% 50V
C66	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C101	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C102	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C103	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C104	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C105	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C106	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C121	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C126	1-135-201-11	s	TANTALUM 10uF 20% 6.3V
C127	1-135-201-11	s	TANTALUM 10uF 20% 6.3V
C128	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C151	1-126-403-11	s	ELECT 3.3uF 20% 50V
C152	1-126-403-11	s	ELECT 3.3uF 20% 50V
C153	1-126-403-11	s	ELECT 3.3uF 20% 50V
C154	1-163-227-11	s	CERAMIC 10PF 5% 50V
C155	1-163-227-11	s	CERAMIC 10PF 5% 50V
C156	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C157	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C158	1-162-765-11	s	CERAMIC, 1000PF
C159	1-131-381-00	s	TANTAL 47uF 10V
C160	1-131-381-00	s	TANTAL 47uF 10V
C201	1-163-037-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C202	1-163-037-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C301	1-163-243-11	s	CERAMIC 47PF 5% 50V
C302	1-163-251-11	s	CERAMIC 100PF 5% 50V
C401	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C402	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C403	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C404	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C407	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
CN1	1-566-962-11	o	CONNECTOR, 50P, FEMALE
CN2	1-566-962-11	o	CONNECTOR, 50P, FEMALE
CN3	1-566-962-11	o	CONNECTOR, 50P, FEMALE
CN4	1-566-962-11	o	CONNECTOR, 50P, FEMALE
CN5	1-566-962-11	o	CONNECTOR, 50P, FEMALE
CN6	1-566-962-11	o	CONNECTOR, 50P, FEMALE
CN7	1-566-962-11	o	CONNECTOR, 50P, FEMALE
CN8	1-566-962-11	o	CONNECTOR, 50P, FEMALE
CN9	1-566-962-11	o	CONNECTOR, 50P, FEMALE
CN10	1-566-962-11	o	CONNECTOR, 50P, FEMALE
CN11	1-566-962-11	o	CONNECTOR, 50P, FEMALE
CN12	1-566-962-11	o	CONNECTOR, 50P, FEMALE
CN13	1-566-962-11	o	CONNECTOR, 50P, FEMALE
CN21	1-566-400-11	o	CONNECTOR, 20P, MALE
CN22	1-566-391-11	o	CONNECTOR 12P
CN23	1-506-468-11	o	CONNECTOR, 3P, MALE
CN24	1-506-470-11	o	CONNECTOR, 5P, MALE
CN25	1-506-468-11	o	CONNECTOR, 3P, MALE

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(MB-317 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
CN31	1-566-536-11	s	CONNECTOR, 20P
CN32	1-566-536-11	s	CONNECTOR, 20P
CN41	1-562-772-11	o	CONNECTOR, 12P, FEMALE
CN42	1-562-772-11	o	CONNECTOR, 12P, FEMALE
CN43	1-562-772-11	o	CONNECTOR, 12P, FEMALE
CN44	1-562-773-11	o	CONNECTOR, 40P, FEMALE
CN50	1-566-397-11	o	CONNECTOR, 14P, MALE
CN51	1-566-397-11	o	CONNECTOR, 14P, MALE
CN52	1-506-471-11	o	CONNECTOR, 6P, MALE
CN53	1-506-469-11	o	CONNECTOR, 4P, MALE
CN54	1-566-398-11	o	CONNECTOR, 16P, MALE
CN55	1-506-470-11	o	CONNECTOR, 5P, MALE
CN56	1-506-481-11	o	CONNECTOR, 2P, MALE
CN57	1-506-470-41	o	CONNECTOR, 5P, MALE
CN58	1-566-395-11	o	CONNECTOR, 10P, MALE
CN59	1-565-157-11	o	CONNECTOR, 10P, MALE
CN60	1-564-710-11	s	CONNECTOR, 8P, MALE
CN61	1-506-468-11	o	CONNECTOR, 3P, MALE
CN62	1-506-469-11	o	CONNECTOR, 4P, MALE
CN63	1-506-468-11	o	CONNECTOR, 3P, MALE
CN64	1-564-704-11	o	CONNECTOR, 2P, MALE
CN501	1-506-470-11	o	CONNECTOR, 5P, MALE
CN502	1-506-471-11	o	CONNECTOR, 6P, MALE
CN503	1-506-467-11	o	CONNECTOR, 2P, MALE
CN504	1-506-468-11	o	CONNECTOR, 3P, MALE
CN505	1-506-472-11	o	CONNECTOR, 7P, MALE
CN506	1-506-467-11	o	CONNECTOR, 2P, MALE
CN507	1-506-467-11	o	CONNECTOR, 2P, MALE
CN508	1-565-156-11	o	CONNECTOR, 9P, MALE
CN509	1-506-467-11	o	CONNECTOR, 2P, MALE
D1	8-719-800-76	s	DIODE 1SS226
D2	8-719-400-18	s	DIODE MA152WK
D3	8-719-400-18	s	DIODE MA152WK
D4	8-719-400-18	s	DIODE MA152WK
D61	8-719-941-23	s	DIODE DA204U
D62	8-719-941-23	s	DIODE DA204U
D63	8-719-105-28	s	DIODE RD2.4M-B
D64	8-719-105-28	s	DIODE RD2.4M-B
D101	8-719-200-36	s	DIODE E10QS04
D102	8-719-200-36	s	DIODE E10QS04
D103	8-719-200-36	s	DIODE E10QS04
D105	8-719-106-88	s	DIODE RD15M-B1
D151	8-719-800-76	s	DIODE 1SS226
D152	8-719-800-76	s	DIODE 1SS226
D401	8-719-800-76	s	DIODE 1SS226
D402	8-719-800-76	s	DIODE 1SS226
D403	8-719-800-76	s	DIODE 1SS226
IC1	8-759-403-48	s	IC AN6701S
IC2	8-759-300-71	s	IC MC14053BF
IC3	8-759-209-57	s	IC TC4S69F
IC4	8-759-209-57	s	IC TC4S69F
IC61	8-759-906-53	s	IC TL062CPS
IC62	8-759-300-71	s	IC MC14053BF
IC63	8-759-700-45	s	IC NJM4556M-A
IC101	8-759-805-06	s	IC CXA1127M
IC102	8-759-700-43	s	IC NJM4558M
IC121	8-759-700-43	s	IC NJM4558M
IC122	8-759-700-43	s	IC NJM4558M

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Ref. No. or Q'ty	Part No.	SP	Description
IC151	8-759-981-54	s	IC RC2041MD
IC201	8-759-200-88	s	IC TC4512BF
IC202	8-759-200-88	s	IC TC4512BF
IC401	8-759-981-65	s	IC LM2903M
IC402	8-759-605-18	s	IC CX-518
IC403	8-759-209-90	s	IC TC4S71F
IC404	8-759-300-71	s	IC MC14053BF
IC405	8-759-209-97	s	IC TC4S81F
L1	1-408-785-21	s	CHIP 47uH
L2	1-408-785-21	s	CHIP 47uH
L3	1-408-781-00	s	CHIP 22uH
L16	1-408-785-21	s	CHIP 47uH
L151	1-408-776-00	s	INDUCTOR CHIP 8.2uH
L152	1-408-776-00	s	INDUCTOR CHIP 8.2uH
PD31	8-719-939-05	s	PHOTOINTERRUPTER GP-1S54
PD32	8-719-939-05	s	PHOTOINTERRUPTER GP-1S54
PD33	8-719-939-05	s	PHOTOINTERRUPTER GP-1S54
PD34	8-719-939-05	s	PHOTOINTERRUPTER GP-1S54
PD35	8-719-939-05	s	PHOTOINTERRUPTER GP-1S54
PD36	8-719-939-11	s	PHOTOINTERRUPTER GP-2S09-B
PD37	8-719-939-11	s	PHOTOINTERRUPTER GP-2S09-B
Q1	8-729-141-48	s	TRANSISTOR 2SB624-BV345
Q2	8-729-117-32	s	TRANSISTOR 2SC4177
Q3	8-729-117-32	s	TRANSISTOR 2SC4177
Q4	8-729-117-32	s	TRANSISTOR 2SC4177
Q5	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q6	8-729-117-32	s	TRANSISTOR 2SC4177
Q31	8-729-117-32	s	TRANSISTOR 2SC4177
Q32	8-729-117-32	s	TRANSISTOR 2SC4177
Q33	8-729-117-32	s	TRANSISTOR 2SC4177
Q34	8-729-117-32	s	TRANSISTOR 2SC4177
Q35	8-729-117-32	s	TRANSISTOR 2SC4177
Q36	8-729-117-32	s	TRANSISTOR 2SC4177
Q37	8-729-117-32	s	TRANSISTOR 2SC4177
Q107	8-729-106-68	s	TRANSISTOR 2SC1615A-GP
Q108	8-729-109-44	s	TRANSISTOR 2SK94
Q151	8-729-271-31	s	TRANSISTOR 2SC2713G
Q201	8-729-216-22	s	TRANSISTOR 2SA1162
Q202	8-729-421-71	s	TRANSISTOR 2SK620
Q301	8-729-906-33	s	TRANSISTOR DTC114YU
Q401	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q402	8-729-117-32	s	TRANSISTOR 2SC4177
Q403	8-729-109-44	s	TRANSISTOR 2SK94
Q404	8-729-117-32	s	TRANSISTOR 2SC4177
Q405	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q501	8-729-175-72	s	TRANSISTOR 2SC2757-T33
R7	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R8	1-216-677-11	s	METAL, CHIP 12K 0.5% 1/10W
R9	1-216-680-11	s	METAL, CHIP 16K 0.5% 1/10W
R10	1-216-684-11	s	METAL, CHIP 24K 0.5% 1/10W
R11	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R72	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R74	1-216-655-11	s	METAL, CHIP 1.5K 0.5% 1/10W
R75	1-216-662-11	s	METAL, CHIP 3K 0.5% 1/10W
R78	1-216-678-11	s	METAL, CHIP 13K 0.5% 1/10W
R101	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
R103	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W

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Ref. No. or Q'ty	Part No.	SP	Description
R104	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
R116	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R121	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R122	1-216-679-11	s	METAL, CHIP 15K 0.5% 1/10W
R123	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R124	1-216-679-11	s	METAL, CHIP 15K 0.5% 1/10W
R153	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
R154	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
R155	1-216-638-11	s	METAL, CHIP 300 0.5% 1/10W
R157	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R158	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R161	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R162	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R163	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R164	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R166	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R167	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R168	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R169	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R501	1-216-690-11	s	METAL, CHIP 43K 0.5% 1/10W
R509	1-216-066-00	s	METAL, CHIP 5.1K 5% 1/10W
R514	1-216-114-00	s	METAL 510K 5% 1/10W

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

PR-176/176U BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8271-330-A	o	MOUNTED CIRCUIT BOARD, PR-176U (UC) (including PR-177 and PR-178 board)
1pc	A-8271-333-A	o	MOUNTED CIRCUIT BOARD, PR-176 (J) (including PR-177 and PR-178 board)
1pc	3-724-710-01	o	PLATE (PR-102), ORNAMENTAL
1pc	3-724-753-01	o	RING
5pcs	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
1pc	7-623-952-21	s	WASHER 2.0, FIBER
1pc	7-688-001-12	s	W 2, MIDDLE
C3	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C4	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C6	1-135-177-21	s	TANTALUM CHIP 1uF 10% 25V
C9	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C13	1-135-177-21	s	TANTALUM CHIP 1uF 10% 25V
C18	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C21	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C23	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C28	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C29	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C30	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C31	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C40	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C41	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C43	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C44	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C47	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C48	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C49	1-135-177-21	s	TANTALUM CHIP 1uF 10% 25V
C52	1-135-177-21	s	TANTALUM CHIP 1uF 10% 25V
C54	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C56	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C57	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C60	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C62	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C67	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C68	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C69	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C70	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C80	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C81	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C84	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C85	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C86	1-135-177-21	s	TANTALUM CHIP 1uF 10% 25V
C89	1-135-177-21	s	TANTALUM CHIP 1uF 10% 25V
C94	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C97	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C99	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C104	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C105	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C106	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C107	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C129	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C130	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C136	1-163-131-00	s	CERAMIC, CHIP 390PF 5% 50V
C137	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C138	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C139	1-135-165-11	s	TANTAL 33uF 10% 16V
C140	1-163-241-11	s	CERAMIC, CHIP 39PF 5% 50V
C143	1-131-365-00	s	TANTALUM 10uF 10% 20V
C150	1-163-222-11	s	CERAMIC 5PF 0.25PF 50V
C151	1-163-222-11	s	CERAMIC 5PF 0.25PF 50V
C152	1-163-222-11	s	CERAMIC 5PF 0.25PF 50V
C153	1-163-237-11	s	CERAMIC 27PF 5% 50V
C154	1-163-237-11	s	CERAMIC 27PF 5% 50V
C155	1-163-237-11	s	CERAMIC 27PF 5% 50V
CN1	1-566-960-11	o	CONNECTOR, 50P, MALE
CN2	1-568-613-11	o	CONNECTOR, FEMAIL, 2P
CN4	1-568-613-11	o	CONNECTOR, FEMAIL, 2P
CN5	1-563-949-11	o	SOCKET, SIL 8P
CN8	1-568-613-11	o	CONNECTOR, FEMAIL, 2P
CN9	1-568-613-11	o	CONNECTOR, FEMAIL, 2P
CN12	1-568-613-11	o	CONNECTOR, FEMAIL, 2P
CV1	1-141-448-21	s	CAP, ADJ 40PF
CV2	1-141-448-21	s	CAP, ADJ 40PF
CV3	1-141-448-21	s	CAP, ADJ 40PF
D2	8-719-815-59	s	DIODE 1S1555-S
D4	8-719-400-18	s	DIODE MA152WK
D5	8-719-815-59	s	DIODE 1S1555-S
D7	8-719-400-18	s	DIODE MA152WK
D8	8-719-815-59	s	DIODE 1S1555-S
D12	8-719-815-59	s	DIODE 1S1555-S
D13	8-719-815-59	s	DIODE 1S1555-S
D14	8-719-815-59	s	DIODE 1S1555-S
D15	8-719-027-95	s	DIODE HSM88WK
D17	8-719-815-59	s	DIODE 1S1555-S
D18	8-719-815-59	s	DIODE 1S1555-S
D19	8-719-815-59	s	DIODE 1S1555-S
D20	8-719-027-95	s	DIODE HSM88WK
D21	8-719-815-59	s	DIODE 1S1555-S
D22	8-719-815-59	s	DIODE 1S1555-S
D23	8-719-815-59	s	DIODE 1S1555-S
D25	8-719-400-18	s	DIODE MA152WK
D26	8-719-800-76	s	DIODE 1SS226
D27	8-719-400-18	s	DIODE MA152WK
D28	8-719-400-18	s	DIODE MA152WK
D29	8-719-400-18	s	DIODE MA152WK
D30	8-719-800-76	s	DIODE 1SS226
D34	8-719-400-18	s	DIODE MA152WK
D35	8-719-800-76	s	DIODE 1SS226
DL1	1-415-489-31	s	DELAY LINE
DL2	1-415-489-31	s	DELAY LINE
DL3	1-415-489-31	s	DELAY LINE
IC1	8-759-906-54	s	IC TL064CNS
IC2	8-759-906-53	s	IC TL062CPS
IC3	8-759-906-54	s	IC TL064CNS
IC5	8-759-906-53	s	IC TL062CPS
IC7	8-759-906-53	s	IC TL062CPS
IC11	1-810-067-11	s	BP-020
IC12	1-810-066-11	s	BP-021

See page 13-74 and 75, for the parts list of the BP-020 and the BP-021.

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(PR-176/176U BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
L1	1-408-785-21	s	CHIP 47uH
L2	1-408-785-21	s	CHIP 47uH
L3	1-408-781-00	s	CHIP 22uH
Q1	8-729-175-73	s	TRANSISTOR 2SC2757
Q2	8-729-122-63	s	TRANSISTOR 2SA1226
Q3	8-729-403-29	s	TRANSISTOR XN6435
Q4	8-729-403-32	s	TRANSISTOR XN6534
Q5	8-729-403-32	s	TRANSISTOR XN6534
Q6	8-729-403-32	s	TRANSISTOR XN6534
Q7	8-729-122-63	s	TRANSISTOR 2SA1226
Q8	8-765-930-08	s	TRANSISTOR 3SK163-2
Q9	8-729-116-64	s	TRANSISTOR 2SK508-K51
Q10	8-729-403-32	s	TRANSISTOR XN6534
Q11	8-729-109-44	s	TRANSISTOR 2SK94
Q12	8-729-109-44	s	TRANSISTOR 2SK94
Q13	8-729-403-29	s	TRANSISTOR XN6435
Q14	8-729-403-29	s	TRANSISTOR XN6435
Q16	8-729-403-29	s	TRANSISTOR XN6435
Q17	8-729-403-29	s	TRANSISTOR XN6435
Q18	8-729-122-63	s	TRANSISTOR 2SA1226
Q19	8-729-403-29	s	TRANSISTOR XN6435
Q20	8-729-403-32	s	TRANSISTOR XN6534
Q21	8-729-109-44	s	TRANSISTOR 2SK94
Q28	8-729-122-63	s	TRANSISTOR 2SA1226
Q29	8-729-175-73	s	TRANSISTOR 2SC2757
Q30	8-729-122-63	s	TRANSISTOR 2SA1226
Q31	8-729-403-29	s	TRANSISTOR XN6435
Q32	8-729-403-32	s	TRANSISTOR XN6534
Q33	8-729-403-32	s	TRANSISTOR XN6534
Q34	8-729-403-32	s	TRANSISTOR XN6534
Q35	8-729-122-63	s	TRANSISTOR 2SA1226
Q36	8-765-930-08	s	TRANSISTOR 3SK163-2
Q37	8-729-116-64	s	TRANSISTOR 2SK508-K51
Q38	8-729-403-32	s	TRANSISTOR XN6534
Q39	8-729-109-44	s	TRANSISTOR 2SK94
Q40	8-729-109-44	s	TRANSISTOR 2SK94
Q41	8-729-403-29	s	TRANSISTOR XN6435
Q42	8-729-403-29	s	TRANSISTOR XN6435
Q44	8-729-403-29	s	TRANSISTOR XN6435
Q45	8-729-403-32	s	TRANSISTOR XN6534
Q46	8-729-403-29	s	TRANSISTOR XN6435
Q47	8-729-109-44	s	TRANSISTOR 2SK94
Q54	8-729-175-73	s	TRANSISTOR 2SC2757
Q55	8-729-122-63	s	TRANSISTOR 2SA1226
Q56	8-729-403-29	s	TRANSISTOR XN6435
Q57	8-729-403-32	s	TRANSISTOR XN6534
Q58	8-729-403-32	s	TRANSISTOR XN6534
Q59	8-729-403-32	s	TRANSISTOR XN6534
Q60	8-729-122-63	s	TRANSISTOR 2SA1226
Q61	8-765-930-08	s	TRANSISTOR 3SK163-2
Q62	8-729-116-64	s	TRANSISTOR 2SK508-K51
Q63	8-729-403-32	s	TRANSISTOR XN6534
Q64	8-729-109-44	s	TRANSISTOR 2SK94
Q65	8-729-109-44	s	TRANSISTOR 2SK94
Q66	8-729-403-29	s	TRANSISTOR XN6435
Q67	8-729-403-29	s	TRANSISTOR XN6435
Q69	8-729-403-29	s	TRANSISTOR XN6435
Q70	8-729-403-32	s	TRANSISTOR XN6534

(PR-176/176U BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q71	8-729-403-29	s	TRANSISTOR XN6435
Q72	8-729-109-44	s	TRANSISTOR 2SK94
Q90	8-729-403-32	s	TRANSISTOR XN6534
Q91	8-729-175-73	s	TRANSISTOR 2SC2757
Q92	8-729-175-73	s	TRANSISTOR 2SC2757
Q93	8-729-122-63	s	TRANSISTOR 2SA1226
Q95	8-729-122-63	s	TRANSISTOR 2SA1226
R2	1-216-637-11	s	METAL, CHIP 270 0.5% 1/10W
R4	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R5	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R8	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R9	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R11	1-216-672-11	s	METAL, CHIP 7.5K 0.5% 1/10W
R12	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R13	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R16	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W
R20	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R21	1-216-692-11	s	METAL, CHIP 51K 0.5% 1/10W
R24	1-216-677-11	s	METAL, CHIP 12K 0.5% 1/10W
R25	1-216-669-11	s	METAL, CHIP 5.6K 0.5% 1/10W
R26	1-216-677-11	s	METAL, CHIP 12K 0.5% 1/10W
R27	1-216-669-11	s	METAL, CHIP 5.6K 0.5% 1/10W
R28	1-216-677-11	s	METAL, CHIP 12K 0.5% 1/10W
R29	1-216-669-11	s	METAL, CHIP 5.6K 0.5% 1/10W
R32	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
R33	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
R34	1-216-686-11	s	METAL, CHIP 30K 0.5% 1/10W
R38	1-216-678-11	s	METAL, CHIP 13K 0.5% 1/10W
R40	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R42	1-216-650-11	s	METAL, CHIP 910 0.5% 1/10W
R43	1-216-676-11	s	METAL, CHIP 11K 0.5% 1/10W
R45	1-216-679-11	s	METAL, CHIP 15K 0.5% 1/10W
R47	1-216-642-11	s	METAL, CHIP 430 0.5% 1/10W
R48	1-216-684-11	s	METAL, CHIP 24K 0.5% 1/10W
R50	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R51	1-216-673-11	s	METAL, CHIP 8.2K 0.5% 1/10W
R52	1-216-666-11	s	METAL, CHIP 4.3K 0.5% 1/10W
R55	1-216-649-11	s	METAL, CHIP 820 0.5% 1/10W
R57	1-216-647-11	s	METAL, CHIP 680 0.5% 1/10W
R58	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R61	1-216-645-11	s	METAL, CHIP 560 0.5% 1/10W
R62	1-216-645-11	s	METAL, CHIP 560 0.5% 1/10W
R63	1-216-645-11	s	METAL, CHIP 560 0.5% 1/10W
R68	1-216-654-11	s	METAL, CHIP 1.3K 0.5% 1/10W
R69	1-216-648-11	s	METAL, CHIP 750 0.5% 1/10W
R70	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R73	1-216-679-11	s	METAL, CHIP 15K 0.5% 1/10W
R100	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R102	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R103	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R106	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R107	1-216-662-11	s	METAL, CHIP 3K 0.5% 1/10W
R108	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R110	1-216-672-11	s	METAL, CHIP 7.5K 0.5% 1/10W
R111	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R112	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R115	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(PR-176/176U BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R119	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R120	1-216-692-11	s	METAL, CHIP 51K 0.5% 1/10W
R125	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
R126	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
R127	1-216-686-11	s	METAL, CHIP 30K 0.5% 1/10W
R131	1-216-678-11	s	METAL, CHIP 13K 0.5% 1/10W
R133	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R135	1-216-650-11	s	METAL, CHIP 910 0.5% 1/10W
R136	1-216-672-11	s	METAL, CHIP 7.5K 0.5% 1/10W
R139	1-216-642-11	s	METAL, CHIP 430 0.5% 1/10W
R140	1-216-684-11	s	METAL, CHIP 24K 0.5% 1/10W
R142	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R143	1-216-673-11	s	METAL, CHIP 8.2K 0.5% 1/10W
R144	1-216-666-11	s	METAL, CHIP 4.3K 0.5% 1/10W
R147	1-216-649-11	s	METAL, CHIP 820 0.5% 1/10W
R149	1-216-647-11	s	METAL, CHIP 680 0.5% 1/10W
R150	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R154	1-216-654-11	s	METAL, CHIP 1.3K 0.5% 1/10W
R155	1-216-648-11	s	METAL, CHIP 750 0.5% 1/10W
R156	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R159	1-216-679-11	s	METAL, CHIP 15K 0.5% 1/10W
R177	1-216-647-11	s	METAL, CHIP 680 0.5% 1/10W
R180	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R181	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R184	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R185	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R187	1-216-672-11	s	METAL, CHIP 7.5K 0.5% 1/10W
R188	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R189	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R192	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W
R196	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R197	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R198	1-216-673-11	s	METAL, CHIP 8.2K 0.5% 1/10W
R202	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
R203	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
R204	1-216-686-11	s	METAL, CHIP 30K 0.5% 1/10W
R208	1-216-678-11	s	METAL, CHIP 13K 0.5% 1/10W
R210	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R212	1-216-650-11	s	METAL, CHIP 910 0.5% 1/10W
R213	1-216-676-11	s	METAL, CHIP 11K 0.5% 1/10W
R215	1-216-679-11	s	METAL, CHIP 15K 0.5% 1/10W
R217	1-216-642-11	s	METAL, CHIP 430 0.5% 1/10W
R218	1-216-684-11	s	METAL, CHIP 24K 0.5% 1/10W
R220	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R221	1-216-673-11	s	METAL, CHIP 8.2K 0.5% 1/10W
R222	1-216-666-11	s	METAL, CHIP 4.3K 0.5% 1/10W
R225	1-216-649-11	s	METAL, CHIP 820 0.5% 1/10W
R227	1-216-647-11	s	METAL, CHIP 680 0.5% 1/10W
R228	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R232	1-216-654-11	s	METAL, CHIP 1.3K 0.5% 1/10W
R233	1-216-648-11	s	METAL, CHIP 750 0.5% 1/10W
R234	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R237	1-216-679-11	s	METAL, CHIP 15K 0.5% 1/10W
R297	1-216-679-11	s	METAL, CHIP 15K 0.5% 1/10W
R298	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R331	1-216-677-11	s	METAL, CHIP 12K 0.5% 1/10W
R332	1-216-677-11	s	METAL, CHIP 12K 0.5% 1/10W
R333	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R336	1-216-672-11	s	METAL, CHIP 7.5K 0.5% 1/10W
R337	1-216-677-11	s	METAL, CHIP 12K 0.5% 1/10W

(PR-176/176U BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R338	1-216-669-11	s	METAL, CHIP 5.6K 0.5% 1/10W
R340	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R341	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R342	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R343	1-216-642-11	s	METAL, CHIP 430 0.5% 1/10W
R344	1-216-650-11	s	METAL, CHIP 910 0.5% 1/10W
R352	1-216-669-11	s	METAL, CHIP 5.6K 0.5% 1/10W
R353	1-216-669-11	s	METAL, CHIP 5.6K 0.5% 1/10W
R359	1-216-692-11	s	METAL, CHIP 51K 0.5% 1/10W
RV1	1-237-032-11	s	RES, ADJ, METAL 500
RV2	1-228-472-00	s	RES, ADJ, METAL 2K
RV3	1-228-472-00	s	RES, ADJ, METAL 2K
RV4	1-228-472-00	s	RES, ADJ, METAL 2K
RV7	1-237-034-11	s	RES, ADJ, METAL 2K
RV8	1-228-473-00	s	RES, ADJ, METAL 5K
RV9	1-228-473-00	s	RES, ADJ, METAL 5K
RV10	1-228-473-00	s	RES, ADJ, METAL 5K
RV12	1-228-471-00	s	RES, ADJ, METAT 1K
RV13	1-228-471-00	s	RES, ADJ, METAT 1K
RV14	1-228-471-00	s	RES, ADJ, METAT 1K
RV15	1-228-470-00	s	RES, ADJ, METAL 500
RV16	1-228-470-00	s	RES, ADJ, METAL 500
RV17	1-228-470-00	s	RES, ADJ, METAL 500
RV18	1-228-473-00	s	RES, ADJ, METAL 5K
RV19	1-228-473-00	s	RES, ADJ, METAL 5K
RV20	1-228-473-00	s	RES, ADJ, METAL 5K
RV21	1-237-032-11	s	RES, ADJ, METAL 500
RV23	1-237-034-11	s	RES, ADJ, METAL 2K
RV24	1-237-034-11	s	RES, ADJ, METAL 2K
RV25	1-237-032-11	s	RES, ADJ, METAL 500
RV28	1-237-034-11	s	RES, ADJ, METAL 2K
RV29	1-237-034-11	s	RES, ADJ, METAL 2K
RV38	1-237-034-11	s	RES, ADJ, METAL 2K
S1	1-570-857-11	s	SWITCH, SLIDE
S2	1-570-857-11	s	SWITCH, SLIDE
S3	1-570-857-11	s	SWITCH, SLIDE
S4	1-570-373-12	s	SWITCH, SLIDE
S5	1-570-373-12	s	SWITCH, SLIDE

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(BP-020)

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-810-067-11	s	BP-020(IC11)
C116	1-135-165-11	s	TANTAL 33uF 10% 16V
C117	1-135-165-11	s	TANTAL 33uF 10% 16V
C119	1-135-165-11	s	TANTAL 33uF 10% 16V
C120	1-135-165-11	s	TANTAL 33uF 10% 16V
C121	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C122	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C124	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C126	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C131	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C133	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C158	1-135-163-21	s	TANTAL 47uF 10% 4V
CN7	1-568-624-11	o	CONNECTOR, MAIL, 4P
CN8	1-568-622-11	o	CONNECTOR, MAIL, 2P
CN9	1-568-622-11	o	CONNECTOR, MAIL, 2P
CN10	1-568-624-11	o	CONNECTOR, MAIL, 4P
CN11	1-568-623-11	o	CONNECTOR, MAIL, 3P
CN12	1-568-622-11	o	CONNECTOR, MAIL, 2P
D9	8-719-104-34	s	DIODE 1S2836
D10	8-719-400-18	s	DIODE MA152WK
D11	8-719-400-18	s	DIODE MA152WK
D24	8-719-948-47	s	DIODE HSM88AS
D31	8-719-400-18	s	DIODE MA152WK
D36	8-719-104-34	s	DIODE 1S2836
IC9	8-759-906-53	s	IC TL062CPS
IC10	8-759-300-71	s	IC MC14053BF
Q79	8-729-403-29	s	TRANSISTOR XN6435
Q80	8-729-159-65	s	TRANSISTOR 2SD596-DV5
Q81	8-729-403-32	s	TRANSISTOR XN6534
Q82	8-729-403-32	s	TRANSISTOR XN6534
Q83	8-729-403-32	s	TRANSISTOR XN6534
Q84	8-729-403-32	s	TRANSISTOR XN6534
Q86	8-729-403-32	s	TRANSISTOR XN6534
Q87	8-729-403-32	s	TRANSISTOR XN6534
Q88	8-729-403-29	s	TRANSISTOR XN6435
Q89	8-729-175-73	s	TRANSISTOR 2SC2757
Q96	8-729-122-63	s	TRANSISTOR 2SA1226
R258	1-216-686-11	s	METAL, CHIP 30K 0.5% 1/10W
R259	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R260	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R261	1-216-645-11	s	METAL, CHIP 560 0.5% 1/10W
R262	1-216-654-11	s	METAL, CHIP 1.3K 0.5% 1/10W
R263	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R264	1-216-645-11	s	METAL, CHIP 560 0.5% 1/10W
R265	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R268	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R269	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R270	1-216-645-11	s	METAL, CHIP 560 0.5% 1/10W
R271	1-216-654-11	s	METAL, CHIP 1.3K 0.5% 1/10W
R272	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R273	1-216-645-11	s	METAL, CHIP 560 0.5% 1/10W
R276	1-216-104-00	s	METAL 200K 0.50% 1/10W
R277	1-216-104-00	s	METAL 200K 0.50% 1/10W
R278	1-216-104-00	s	METAL 200K 0.50% 1/10W
R279	1-216-104-00	s	METAL 200K 0.50% 1/10W
R288	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R325	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R326	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R327	1-216-686-11	s	METAL, CHIP 30K 0.5% 1/10W
R328	1-216-685-11	s	METAL, CHIP 27K 0.5% 1/10W
R329	1-216-679-11	s	METAL, CHIP 15K 0.5% 1/10W
R345	1-216-649-11	s	METAL, CHIP 820 0.5% 1/10W
R346	1-216-653-11	s	METAL, CHIP 1.2K 0.5% 1/10W
R347	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W
RV30	1-237-036-11	s	RES, ADJ, METAL 10K
RV31	1-237-036-11	s	RES, ADJ, METAL 10K
RV32	1-237-036-11	s	RES, ADJ, METAL 10K
RV33	1-237-036-11	s	RES, ADJ, METAL 10K
RV34	1-237-035-11	s	RES, ADJ, METAL 5K
RV35	1-237-034-11	s	RES, ADJ, METAL 2K
RV36	1-237-034-11	s	RES, ADJ, METAL 2K
RV37	1-237-035-11	s	RES, ADJ, METAL 5K

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(BP-021)

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-810-066-11	s	BP-021(IC12)
C30	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C36	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C37	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C38	1-163-245-11	s	CERAMIC 56PF 5% 50V
C69	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C75	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C76	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C77	1-163-245-11	s	CERAMIC 56PF 5% 50V
C106	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C112	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C113	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C114	1-163-245-11	s	CERAMIC 56PF 5% 50V
CN2	1-568-622-11	o	CONNECTOR, MAIL, 2P
CN3	1-568-623-11	o	CONNECTOR, MAIL, 3P
CN4	1-568-622-11	o	CONNECTOR, MAIL, 2P
CN5	1-568-624-11	o	CONNECTOR, MAIL, 4P
CN6	1-568-624-11	o	CONNECTOR, MAIL, 4P
CN13	1-568-624-11	o	CONNECTOR, MAIL, 4P
Q22	8-729-403-29	s	TRANSISTOR XN6435
Q23	8-729-403-29	s	TRANSISTOR XN6435
Q24	8-729-403-32	s	TRANSISTOR XN6534
Q25	8-729-122-63	s	TRANSISTOR 2SA1226
Q26	8-729-122-63	s	TRANSISTOR 2SA1226
Q27	8-729-175-73	s	TRANSISTOR 2SC2757
Q48	8-729-403-29	s	TRANSISTOR XN6435
Q49	8-729-403-29	s	TRANSISTOR XN6435
Q50	8-729-403-32	s	TRANSISTOR XN6534
Q51	8-729-122-63	s	TRANSISTOR 2SA1226
Q52	8-729-122-63	s	TRANSISTOR 2SA1226
Q53	8-729-175-73	s	TRANSISTOR 2SC2757
Q73	8-729-403-29	s	TRANSISTOR XN6435
Q74	8-729-403-29	s	TRANSISTOR XN6435
Q75	8-729-403-32	s	TRANSISTOR XN6534
Q76	8-729-122-63	s	TRANSISTOR 2SA1226
Q77	8-729-122-63	s	TRANSISTOR 2SA1226
Q78	8-729-175-73	s	TRANSISTOR 2SC2757
R81	1-216-058-00	s	METAL 2.4K 5% 1/10W
R91	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R92	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R96	1-216-064-00	s	METAL, CHIP 4.3K 5% 1/10W
R167	1-216-058-00	s	METAL 2.4K 5% 1/10W
R171	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R172	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R176	1-216-064-00	s	METAL, CHIP 4.3K 5% 1/10W
R245	1-216-058-00	s	METAL 2.4K 5% 1/10W
R249	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R250	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R254	1-216-064-00	s	METAL, CHIP 4.3K 5% 1/10W

PS-162B BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6723-360-A	o	MOUNTED CIRCUIT BOARD, PS-162J (J) Serial No. UP TO 30180
1pc	A-8271-735-A	o	MOUNTED CIRCUIT BOARD, PS-162B (J) Serial No. 30181 AND HIGHER
1pc	A-6723-368-A	o	MOUNTED CIRCUIT BOARD, PS-162 (UC) Serial No. UP TO 10147
1pc	A-8271-736-A	o	MOUNTED CIRCUIT BOARD, PS-162B (UC) Serial No. 10148 AND HIGHER
1pc	3-724-752-01	o	HOLDER (PS), PC BOARD
1pc	3-729-012-01	s	SCREW (M2X5)
1pc	7-623-420-07	s	LW 2, TYPE B
C1	1-126-163-11	s	ELECT 4.7MF 20% 50V
C4	1-117-895-11	s	DOUBLE LAYERS 0.33FARAD 5.5V
C5	1-124-248-00	s	ELECT 22uF 20% 35V
CB1 ⚠	1-532-681-00	s	CIRCUIT BREAKER 4A 125V
CN1	1-564-705-11	o	CONNECTOR, 3P, MALE
CN2	1-564-707-11	o	CONNECTOR, 5P, MALE
CN3	1-506-468-11	o	CONNECTOR, 3P, MALE
CN4	1-506-468-11	o	CONNECTOR, 3P, MALE
CN5	1-564-710-11	s	CONNECTOR, 8P, MALE
CN6	1-566-528-11	s	CONNECTOR, 12P(FOR PS-162)
CN6	1-695-903-21	o	CONNECTOR, 12P(FOR PS-162B)
CN7	1-564-704-11	o	CONNECOR, 2P, MALE
CN8	1-506-469-11	o	CONNECTOR, 4P, MALE
CN10	1-564-706-11	o	PIN HEADER, STRAIGHT 4P
D1	8-719-911-55	s	DIODE U05G
D2	8-719-800-76	s	DIODE 1SS226
D3	8-719-800-76	s	DIODE 1SS226
D4	8-719-911-55	s	DIODE U05G
D5	8-719-160-20	s	DIODE RD4.7FB
IC1	8-759-906-53	s	IC TL062CPS
IC2	8-759-939-41	s	IC S-81230AG-RB
Q1	8-729-202-62	s	TRANSISTOR 2SD1221
Q2	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3	8-729-119-59	s	TRANSISTOR 2SK612-Z
Q4	8-729-109-44	s	TRANSISTOR 2SK94
R1	1-249-389-11	s	CARBON 4.7 5% 1/4W
RV1	1-230-873-11	s	RES, ADJ, METAL 47K
S1	1-570-610-11	s	SWITCH, TOGGLE (UC)
S2	1-570-610-11	s	SWITCH, TOGGLE (UC)

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

SG-152B BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8271-759-A	o	MOUNTED CIRCUIT BOARD, SG-152B (including SG-157 board)
1pc	1-565-123-11	o	HOUSING, 4P
1pc	1-565-164-21	o	CONTACT, FEMALE, AWG26-28
1pc	3-724-753-01	o	RING
5pcs	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
1pc	7-688-001-12	s	W 2, MIDDLE
1pc	3-734-721-01	o	PLATE (SG-152), ORNAMENTAL
C1	1-131-388-00	s	TANTALUM 68uF 10% 6.3V
C3	1-131-374-00	s	TANTALUM 33uF 10% 16V
C5	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C7	1-163-099-00	s	CERAMIC, CHIP 18PF 5% 50V
C8	1-135-162-21	s	TANTAL 33uF 10% 6.3V
C9	1-163-110-00	s	CERAMIC, CHIP 51PF 5% 50V
C10	1-163-110-00	s	CERAMIC, CHIP 51PF 5% 50V
C11	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C13	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C14	1-163-809-11	s	CERAMIC, CHIP 0.047uF 10% 25V
C16	1-135-125-21	s	TANTALUM, CHIP 33uF 20% 10V
C17	1-163-235-11	s	CERAMIC 22PF 5% 50V
C18	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C21	1-163-106-00	s	CERAMIC 36PF 5% 50V
C22	1-163-243-11	s	CERAMIC 47PF 5% 50V
C24	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C28	1-163-809-11	s	CERAMIC, CHIP 0.047uF 10% 25V
C30	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C31	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C33	1-163-251-11	s	CERAMIC 100PF 5% 50V
C34	1-163-251-11	s	CERAMIC 100PF 5% 50V
C38	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C41	1-163-227-11	s	CERAMIC 10PF 5% 50V
C43	1-163-131-00	s	CERAMIC, CHIP 390PF 5% 50V
C44	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C45	1-131-367-00	s	TANTALUM 22uF 10% 20V
C46	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C49	1-131-367-00	s	TANTALUM 22uF 10% 20V
C50	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C51	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C53	1-135-212-21	s	TANTAL 2.2uF 10% 35V
C58	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C59	1-162-637-11	s	CERAMIC, CHIP 0.47uF 16V
C62	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C66	1-135-157-21	s	TANTAL 10uF 10% 6.3V
C67	1-131-374-00	s	TANTALUM 33uF 10% 16V
C68	1-131-388-00	s	TANTALUM 68uF 10% 6.3V
C89	1-163-243-11	s	CERAMIC 47PF 5% 50V
CN1	1-566-960-11	o	CONNECTOR, 50P, MALE
D1	8-719-800-76	s	DIODE 1SS226
D2	8-719-914-11	s	DIODE HZ4ALL
D3	8-719-800-76	s	DIODE 1SS226
D4	8-719-800-76	s	DIODE 1SS226
D5	8-719-800-76	s	DIODE 1SS226
D6	8-719-800-76	s	DIODE 1SS226
D9	8-719-951-12	s	DIODE HZ5BLL
D10	8-719-948-47	s	DIODE HSM88AS
D11	8-719-400-18	s	DIODE MA152WK
D12	8-719-800-76	s	DIODE 1SS226

(SG-152B BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
D13	8-719-910-65	s	DIODE HZ6B2L
D15	8-719-921-12	s	DIODE HZ2BLL
D16	8-719-109-81	s	DIODE RD4.7ES-B2
D17	8-719-800-76	s	DIODE 1SS226
D18	8-719-104-34	s	DIODE 1S2836
D19	8-719-800-76	s	DIODE 1SS226
D20	8-719-400-18	s	DIODE MA152WK
IC1	8-741-104-00	s	IC BX-1040
IC2	8-759-101-12	s	IC UPC311G2
IC3	8-752-335-47	s	IC CXD1216M
IC4	8-759-300-71	s	IC MC14053BF
IC5	8-759-906-54	s	IC TL064CNS
IC6	8-759-038-15	s	IC MC74HC4538AF
IC7	8-752-332-67	s	IC CXD1217M
IC8	8-759-200-79	s	IC TC4049BF
IC9	8-759-204-93	s	IC TC50H001F
IC10	8-759-209-57	s	IC TC4S69F
IC11	8-759-907-21	s	IC CX-7969
IC12	8-759-204-93	s	IC TC50H001F
IC13	8-759-906-54	s	IC TL064CNS
IC14	8-759-632-07	s	IC M5237L
IC15	8-759-300-71	s	IC MC14053BF
IC17	8-759-906-54	s	IC TL064CNS
IC18	8-759-209-57	s	IC TC4S69F
IC19	8-759-209-57	s	IC TC4S69F
IC20	8-759-209-57	s	IC TC4S69F
IC25	8-759-112-66	s	IC UPC812G2
L1	1-408-785-21	s	CHIP 47uH
L2	1-408-785-21	s	CHIP 47uH
L3	1-408-785-21	s	CHIP 47uH
L4	1-408-781-00	s	CHIP 22uH
L5	1-408-781-00	s	CHIP 22uH
L6	1-408-785-21	s	CHIP 47uH
L7	1-408-785-21	s	CHIP 47uH
L8	1-408-785-21	s	CHIP 47uH
L9	1-408-785-21	s	CHIP 47uH
L10	1-408-785-21	s	CHIP 47uH
L11	1-408-780-21	s	INDUCTOR CHIP 18uH
LV1	1-408-845-00	s	INDUCTOR, VAR, 100uH
Q1	8-729-216-22	s	TRANSISTOR 2SA1162
Q2	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q5	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q6	8-729-216-22	s	TRANSISTOR 2SA1162
Q7	8-729-216-22	s	TRANSISTOR 2SA1162
Q8	8-729-101-07	s	TRANSISTOR 2SB798
Q9	8-729-807-50	s	TRANSISTOR 2SD1623
Q10	8-729-101-07	s	TRANSISTOR 2SB798
Q11	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q12	8-729-101-07	s	TRANSISTOR 2SB798
Q13	8-729-216-22	s	TRANSISTOR 2SA1162
Q16	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q19	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q20	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q21	8-729-216-22	s	TRANSISTOR 2SA1162
Q22	8-729-216-22	s	TRANSISTOR 2SA1162

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(SG-152B BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q23	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
R14	1-216-066-00	s	METAL, CHIP 5.1K 5% 1/10W
R17	1-216-066-00	s	METAL, CHIP 5.1K 5% 1/10W
R22	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R40	1-216-651-11	s	METAL, CHIP 1K 5% 1/10W
R58	1-216-681-11	s	METAL, CHIP 18K 0.5% 1/10W
R59	1-216-661-11	s	METAL, CHIP 2.7K 0.5% 1/10W
R61	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
R62	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R63	1-216-688-11	s	METAL, CHIP 36K 0.5% 1/10W
R64	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
R65	1-216-693-11	s	METAL, CHIP 56K 0.5% 1/10W
R79	1-216-635-11	s	METAL, CHIP 220 0.5% 1/10W
R80	1-216-649-11	s	METAL, CHIP 820 0.5% 1/10W
R99	1-216-126-11	s	METAL CHIP 1.6M 5% 1/10W
R110	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R137	1-216-697-11	s	METAL, CHIP 82K 0.5% 1/10W
R138	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R139	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R140	1-216-679-11	s	METAL, CHIP 15K 0.5% 1/10W
R141	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R142	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
R143	1-216-695-11	s	METAL, CHIP 68K 0.5% 1/10W
R147	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
R151	1-216-690-11	s	METAL, CHIP 43K 0.5% 1/10W
R153	1-216-104-00	s	METAL 200K 0.50% 1/10W
RV1	1-237-037-11	s	RES, ADJ, METAL 20K
RV2	1-228-474-00	s	RES, ADJ, METAL 10K
RV3	1-237-037-11	s	RES, ADJ, METAL 20K
RV4	1-237-033-11	s	RES, ADJ, METAL 1K
RV5	1-228-472-00	s	RES, ADJ, METAL 2K
RV6	1-228-475-00	s	RES, ADJ, METAL 20K
RV7	1-228-475-00	s	RES, ADJ, METAL 20K
S1	1-570-850-11	s	SWITCH, SLIDE
S2	1-553-925-00	s	SWITCH, DIGITAL
S3	1-570-857-11	s	SWITCH, SLIDE
X1	1-577-089-11	s	OSCILLATOR, CRYSTAL

SG-157 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-7520-420-A	o	MOUNTED CIRCUIT BOARD, SG-157
C73	1-163-243-11	s	CERAMIC 47PF 5% 50V
C77	1-163-099-00	s	CERAMIC, CHIP 18PF 5% 50V
CN1	1-565-151-11	o	CONNECTOR, 4P, MALE
CN2	1-566-294-11	o	TERMINAL, PC BOARD 20P
CN3	1-566-294-11	o	TERMINAL, PC BOARD 20P
D21	8-719-104-34	s	DIODE 1S2836
IC22	8-759-100-94	s	IC UPC358G2
IC23	8-759-300-71	s	IC MC14053BF
IC24	8-759-902-88	s	IC SN74LS123NS
Q24	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
R122	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R123	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R124	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R125	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R126	1-216-672-11	s	METAL, CHIP 7.5K 0.5% 1/10W
R127	1-216-661-11	s	METAL, CHIP 2.7K 0.5% 1/10W
R128	1-216-670-11	s	METAL, CHIP 6.2K 0.5% 1/10W
R129	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R130	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R131	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R132	1-216-685-11	s	METAL, CHIP 27K 0.5% 1/10W
R133	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R134	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R135	1-216-685-11	s	METAL, CHIP 27K 0.5% 1/10W
R136	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
RV8	1-237-037-11	s	RES, ADJ, METAL 20K
S4	1-553-510-00	s	SWITCH, SLIDE

SR-40 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
PD1	8-719-948-58	s	PHOTO SENSOR GP2S07B
PD2	8-719-948-58	s	PHOTO SENSOR GP2S07B
PD3	8-719-948-58	s	PHOTO SENSOR GP2S07B
PD4	8-719-948-58	s	PHOTO SENSOR GP2S07B
1pc	A-6754-072-A	o	MOUNTED CIRCUIT BOARD, SR-40
1pc	1-625-894-11	o	PRINTED CIRCUIT BOARD, FL-53 FLEXIB
Q1	8-729-100-67	s	TRANSISTOR 2SC1623-L7
Q2	8-729-100-67	s	TRANSISTOR 2SC1623-L7
Q3	8-729-100-67	s	TRANSISTOR 2SC1623-L7
Q4	8-729-100-67	s	TRANSISTOR 2SC1623-L7

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

SV-97A BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6715-436-A	o	MOUNTED CIRCUIT BOARD, SV-97A
1pc	3-724-715-01	o	PLATE (SV-97), ORNAMENTAL
1pc	3-724-753-01	o	RING
1pc	7-688-001-12	s	W 2, MIDDLE
5pcs	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
C4	1-163-037-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C5	1-162-638-11	s	CERAMIC, CHIP 1uF 16V
C19	1-163-251-11	s	CERAMIC 100PF 5% 50V
C20	1-163-075-00	s	CERAMIC, CHIP 0.047uF 50V
C21	1-163-251-11	s	CERAMIC 100PF 5% 50V
C23	1-163-075-00	s	CERAMIC, CHIP 0.047uF 50V
C25	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C26	1-163-075-00	s	CERAMIC, CHIP 0.047uF 50V
C27	1-163-037-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C28	1-163-075-00	s	CERAMIC, CHIP 0.047uF 50V
C29	1-163-075-00	s	CERAMIC, CHIP 0.047uF 50V
C71	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C73	1-163-229-11	s	CERAMIC 12PF 5% 50V
C74	1-163-229-11	s	CERAMIC 12PF 5% 50V
C82	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C91	1-126-629-11	s	ELECT 27uF 20% 25V
C95	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C97	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C101	1-163-075-00	s	CERAMIC, CHIP 0.047uF 50V
C103	1-126-630-11	s	ELECT 82uF 20% 25V
C105	1-124-943-11	s	ELECT 39 20% 25V
C106	1-163-012-00	s	CERAMIC 0.0018uF 10% 50V
C121	1-163-263-11	s	CERAMIC 330PF 5% 50V
C131	1-163-809-11	s	CERAMIC, CHIP 0.047uF 10% 25V
C135	1-124-943-11	s	ELECT 39 20% 25V
C136	1-163-012-00	s	CERAMIC 0.0018uF 10% 50V
C137	1-163-243-11	s	CERAMIC 47PF 5% 50V
CN1	1-566-960-11	o	CONNECTOR, 50P, MALE
CN2	1-566-397-21	o	CONNECTOR, 14P, MALE
D1	8-719-800-76	s	DIODE 1SS226
D2	8-719-800-76	s	DIODE 1SS226
D3	8-719-800-76	s	DIODE 1SS226
D4	8-719-800-76	s	DIODE 1SS226
D5	8-719-404-35	s	DIODE MA141WK
D7	8-719-981-01	s	DIODE ERA81-004
D8	8-719-981-01	s	DIODE ERA81-004
IC1	8-752-814-54	s	IC CXP80116-649Q
IC2	8-759-100-96	s	IC UPC4558G2
IC3	8-759-981-65	s	IC LM2903M
IC4	8-759-100-96	s	IC UPC4558G2
IC5	8-759-100-96	s	IC UPC4558G2
IC6	8-759-100-94	s	IC UPC358G2
IC7	8-759-981-65	s	IC LM2903M
IC9	8-759-300-71	s	IC MC14053BF
IC10	8-759-009-11	s	IC MC14070BF
IC11	8-759-008-82	s	IC MC14013BF
IC12	8-759-009-51	s	IC MC14538BF
IC14	8-759-300-71	s	IC MC14053BF
IC15	8-759-981-65	s	IC LM2903M
IC16	8-759-100-94	s	IC UPC358G2
IC17	8-759-981-65	s	IC LM2903M
IC18	8-759-100-94	s	IC UPC358G2

(SV-97A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
IC19	8-759-981-65	s	IC LM2903M
IC22	8-759-209-69	s	IC TC4S11F
L1	1-424-055-11	s	COIL, CHOKE
L2	1-424-055-11	s	COIL, CHOKE
L5	1-408-789-21	s	CHIP 100uH
L6	1-421-801-11	s	COIL, CHOKE 60uH
Q1	8-729-117-32	s	TRANSISTOR 2SC4177
Q2	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q3	8-729-209-01	s	TRANSISTOR 2SB907
Q4	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q5	8-729-807-50	s	TRANSISTOR 2SD1623
Q6	8-729-209-01	s	TRANSISTOR 2SB907
Q7	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q8	8-729-807-50	s	TRANSISTOR 2SD1623
Q9	8-729-901-46	s	TRANSISTOR DTA114YK
Q10	8-729-905-18	s	TRANSISTOR DTC144EU
R1	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R2	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R3	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R4	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R5	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R6	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R7	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R8	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R9	1-216-857-11	s	METAL, CHIP 1M 5% 1/16W
R10	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R11	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R12	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R13	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R14	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R15	1-216-853-11	s	METAL, CHIP 470K 5% 1/16W
R16	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R17	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R21	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R22	1-216-851-11	s	METAL, CHIP 330K 5% 1/16W
R23	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R24	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R29	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R30	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R31	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R32	1-216-853-11	s	METAL, CHIP 470K 5% 1/16W
R33	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R34	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R35	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R36	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R37	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R38	1-216-831-11	s	METAL, CHIP 6.8K 5% 1/16W
R39	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R40	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R43	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R44	1-216-857-11	s	METAL, CHIP 1M 5% 1/16W
R45	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R46	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R48	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R50	1-216-864-11	s	METAL, CHIP 0-OHM
R51	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R52	1-216-851-11	s	METAL, CHIP 330K 5% 1/16W

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(SV-97A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R53	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R54	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R55	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R56	1-216-857-11	s	METAL, CHIP 1M 5% 1/16W
R57	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R58	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R59	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R60	1-216-847-11	s	METAL, CHIP 150K 5% 1/16W
R61	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R62	1-216-857-11	s	METAL, CHIP 1M 5% 1/16W
R63	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R64	1-216-686-11	s	METAL, CHIP 30K 0.5% 1/10W
R65	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R66	1-216-649-11	s	METAL, CHIP 820 0.5% 1/10W
R67	1-216-846-11	s	METAL, CHIP 120K 5% 1/16W
R68	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R69	1-216-854-11	s	METAL, CHIP 560K 5% 1/16W
R70	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R71	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R72	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R74	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R75	1-216-830-11	s	METAL, CHIP 5.6K 5% 1/16W
R81	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R82	1-216-835-11	s	METAL, CHIP 15K 5% 1/16W
R83	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R84	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R85	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R87	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R88	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R89	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R90	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R91	1-216-853-11	s	METAL, CHIP 470K 5% 1/16W
R92	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R93	1-216-830-11	s	METAL, CHIP 5.6K 5% 1/16W
R101	1-216-853-11	s	METAL, CHIP 470K 5% 1/16W
R102	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R103	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R104	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R105	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R106	1-216-840-11	s	METAL, CHIP 39K 5% 1/16W
R107	1-216-830-11	s	METAL, CHIP 5.6K 5% 1/16W
R108	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R109	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R110	1-216-843-11	s	METAL, CHIP 68K 5% 1/16W
R111	1-216-836-11	s	METAL, CHIP 18K 5% 1/16W
R112	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R113	1-216-832-11	s	METAL, CHIP 8.2K 5% 1/16W
R114	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R115	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R116	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R121	1-216-853-11	s	METAL, CHIP 470K 5% 1/16W
R122	1-216-853-11	s	METAL, CHIP 470K 5% 1/16W
R123	1-216-854-11	s	METAL, CHIP 560K 5% 1/16W
R124	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R125	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R131	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R132	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R133	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R134	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W

(SV-97A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R135	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R136	1-216-840-11	s	METAL, CHIP 39K 5% 1/16W
R137	1-216-830-11	s	METAL, CHIP 5.6K 5% 1/16W
R138	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R139	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R140	1-216-843-11	s	METAL, CHIP 68K 5% 1/16W
R141	1-216-836-11	s	METAL, CHIP 18K 5% 1/16W
R142	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R143	1-216-832-11	s	METAL, CHIP 8.2K 5% 1/16W
R144	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R145	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R146	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R151	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R153	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R154	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R155	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R156	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R157	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R158	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R159	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R160	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R161	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R162	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R163	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R164	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R165	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R166	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R167	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R168	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R169	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R170	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R171	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R172	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R173	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R174	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R175	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R176	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R177	1-216-864-11	s	METAL, CHIP 0-OHM
R178	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R180	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R181	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R182	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R183	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R184	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R185	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R186	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R187	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R188	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R189	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R190	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R191	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R192	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R193	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R194	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R195	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R196	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R197	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R198	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R199	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(SV-97A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R301	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R302	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
RV1	1-230-871-11	s	RES, ADJ, METAL 22K
RV2	1-230-871-11	s	RES, ADJ, METAL 22K
RV3	1-230-875-21	s	RES, ADJ, METAL 220K
RV4	1-230-875-21	s	RES, ADJ, METAL 220K
RV5	1-230-875-21	s	RES, ADJ, METAL 220K
RV6	1-230-873-11	s	RES, ADJ, METAL 47K
RV7	1-230-875-21	s	RES, ADJ, METAL 220K
X1	1-577-076-11	s	CRYSTAL, 16.000MHz

SW-220 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-7520-307-A	o	MOUNTED CIRCUIT BOARD, SW-220
1pc	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
1pc	1-563-869-11	o	CONTACT, FEMALE, AWG26-30
CN1	1-562-150-11	s	HOUSING, 5P
CN2	1-506-475-11	o	CONNECTOR, 10P, MALE
CN2	1-562-743-11	o	HOUSING, 10P
CN54	1-563-876-11	o	HOUSING, 16P
D1	8-719-901-33	s	DIODE 1SS133
D2	8-719-901-33	s	DIODE 1SS133
S1	1-554-355-00	s	SWITCH, TOGGLE
S2	1-554-400-00	s	SWITCH, TOGGLE
S3	1-554-400-00	s	SWITCH, TOGGLE
S4	1-554-356-00	s	SWITCH, TOGGLE
S5	1-553-856-00	s	SWITCH, TACTILE

SW-291 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-625-555-11	o	PRINTED CIRCUIT BOARD, SW-291
CN1	1-506-481-11	o	CONNECTOR, 2P, MALE
D1	8-719-902-27	s	LED EBR3402S, RED
SW1	1-570-608-11	s	SWITCH, TOGGLE

SW-357 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-629-570-11	o	PRINTED CIRCUIT BOARD, SW-357
CN1	1-506-484-11	o	CONNECTOR, 5P, MALE
CN2	1-506-482-11	o	CONNECTOR, 3P, MALE
R1	1-249-405-11	s	CARBON 100 5% 1/4W
S1	1-554-395-00	s	SWITCH, TOGGLE
S2	1-554-396-00	s	SWITCH, TOGGLE
S3	1-570-995-11	s	SWITCH, KEY BOARD

SW-562 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-564-832-11	o	CONTACT
1pc	1-580-579-11	o	HOUSING, 6P
1pc	1-580-599-11	o	CONTACT, FEMALE, AWG26-30
1pc	1-643-709-11	o	PRINTED CIRCUIT BOARD, SW-562
CN2	1-565-149-11	o	PIN, CONNECTOR (ANGLE) 2P
D1	8-719-800-76	s	DIODE 1SS226
S1	1-570-984-11	s	SWITCH, TOGGLE
S2	1-570-985-11	s	SWITCH, TOGGLE
S3	1-570-985-11	s	SWITCH, TOGGLE

SW-563 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-643-714-11	o	PRINTED CIRCUIT BOARD, SW-563
CN904	1-565-151-11	o	CONNECTOR, 4P, MALE
IC1	8-759-701-01	s	IC NJM2904M
R1	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R2	1-216-100-00	s	METAL 130K 5% 1/10W
R3	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R4	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
R5	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R6	1-216-675-11	s	METAL, CHIP 10K 0.50% 1/10W
S1	1-692-128-11	s	SWITCH, ROTARY

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

SY-117C BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6717-576-A	o	MOUNTED CIRCUIT BOARD, SY-117C
1pc	3-724-714-01	o	PLATE (SY-117), ORNAMENTAL
1pc	3-724-753-01	o	RING
5pcs	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
1pc	7-688-001-12	s	W 2, MIDDLE
C4	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C5	1-126-401-11	s	ELECT, CHIP 1uF 20% 50V
C6	1-126-398-11	s	ELECT, CHIP 4.7uF 20% 35V
C7	1-163-099-00	s	CERAMIC, CHIP 18PF 5% 50V
C8	1-163-099-00	s	CERAMIC, CHIP 18PF 5% 50V
C11	1-127-491-00	s	ELECTSOLID 20 10V
C12	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C13	1-162-995-11	s	CERAMIC, CHIP 0.022uF 50V
C14	1-162-995-11	s	CERAMIC, CHIP 0.022uF 50V
C15	1-162-995-11	s	CERAMIC, CHIP 0.022uF 50V
C16	1-162-995-11	s	CERAMIC, CHIP 0.022uF 50V
C17	1-162-995-11	s	CERAMIC, CHIP 0.022uF 50V
C18	1-162-995-11	s	CERAMIC, CHIP 0.022uF 50V
CN1	1-566-960-11	o	CONNECTOR, 50P, MALE
CN2	1-566-388-11	s	CONNECTOR, 8P, MALE
D1	8-719-404-35	s	DIODE MA141WK
IC1	8-752-815-64	s	IC CXP80116-668Q
IC3	8-759-009-51	s	IC MC14538BF
IC4	8-759-542-91	s	IC S-80840ANUP-ED4
IC5	8-759-925-80	s	IC SN74HC14NS
IC6	8-759-927-29	s	IC SN74HCU04ANS
IC7	8-759-927-46	s	IC SN74HC00ANS
Q1	8-729-905-18	s	TRANSISTOR DTC144EU
Q2	8-729-905-12	s	TRANSISTOR DTA144EU
Q3	8-729-907-00	s	TRANSISTOR DTC114EU
Q4	8-729-907-00	s	TRANSISTOR DTC114EU
Q5	8-729-907-00	s	TRANSISTOR DTC114EU
Q6	8-729-905-18	s	TRANSISTOR DTC144EU
Q7	8-729-905-18	s	TRANSISTOR DTC144EU
Q8	8-729-117-32	s	TRANSISTOR 2SC4177
Q9	8-729-907-00	s	TRANSISTOR DTC114EU
R1	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R2	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R3	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R4	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R5	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R6	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R7	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R8	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R9	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R10	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R11	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R12	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R13	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R14	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R15	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R16	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R17	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R29	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R30	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R31	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W

(SY-117C BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R32	1-216-821-11	s	METAL, CHIP 1K 5% 1/1/1
R33	1-216-845-11	s	METAL, CHIP 100K 5% 16W
R34	1-216-821-11	s	METAL, CHIP 1K 5% 1/1/16W
R35	1-216-845-11	s	METAL, CHIP 100K 5% 16W
R36	1-216-821-11	s	METAL, CHIP 1K 5% 1/1/16W
R37	1-216-845-11	s	METAL, CHIP 100K 5% 1/1
R38	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R39	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R40	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R43	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R44	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R45	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R46	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R47	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R48	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R49	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R50	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R51	1-218-303-11	s	METAL, CHIP 10K 1% 1/16W
R52	1-218-306-11	s	METAL CHIP 100K 1% 1/16W
R53	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R54	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R55	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R56	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R57	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R58	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R59	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R60	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W
R61	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W
R62	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R63	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R64	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R65	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R66	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R67	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R68	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R69	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R70	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R71	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R72	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R73	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R74	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R75	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R76	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R77	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R78	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R79	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R80	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R81	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R82	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R83	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R84	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R85	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R86	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R87	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R88	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R89	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R90	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R91	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R92	1-216-813-11	s	METAL, CHIP 220 5% 1/16W

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(SY-117C BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R93	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R94	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R95	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R96	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R97	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R98	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R100	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R102	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R103	1-216-819-11	s	METAL, CHIP 680 5% 1/16W
R104	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R105	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R106	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R107	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R201	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R203	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R205	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R207	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R211	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R213	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R215	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R217	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R219	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R221	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R223	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R225	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R226	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R227	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
S1	1-570-374-12	s	SWITCH, SLIDE
X1	1-567-962-11	s	CRYSTAL 8MHz

TB-5 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6725-604-A	o	MOUNTED CIRCUIT BOARD, TB-5
1pc	3-729-013-41	s	SCREW(M1.4X3.5),WASHERHEAD(+P)
C1	1-163-011-11	s	CERAMIC, CHIP 0.0015uF 10% 50V
C2	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C3	1-135-157-21	s	TANTAL 10uF 10% 6.3V
C4	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C5	1-163-263-11	s	CERAMIC 330PF 5% 50V
C6	1-163-217-11	s	CERAMIC 1PF 0.25PF 50V
C7	1-163-217-11	s	CERAMIC 1PF 0.25PF 50V
C11	1-163-011-11	s	CERAMIC, CHIP 0.0015uF 10% 50V
C12	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C13	1-135-157-21	s	TANTAL 10uF 10% 6.3V
C14	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C16	1-163-217-11	s	CERAMIC 1PF 0.25PF 50V
C17	1-163-217-11	s	CERAMIC 1PF 0.25PF 50V
C27	1-163-139-00	s	CERAMIC, CHIP 820PF 5% 50V
C45	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C46	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C51	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
CN1	1-506-730-11	o	CONNECTOR, 40P, MALE
CN2	1-566-526-11	s	CONNECTOR, 10P
CN3	1-565-339-11	s	CONNECTOR, 10P, FEMALE
CN4	1-566-523-11	s	CONNECTOR, 7P
CN5	1-566-521-11	s	CONNECTOR, 5P
CN6	1-506-471-11	o	CONNECTOR, 6P, MALE
CN7	1-565-340-11	s	CONNECTOR, 6P, FEMALE
D21	8-719-404-35	s	DIODE MA141WK
D51	8-719-106-88	s	DIODE RD15M-B1
FB1	1-543-309-21	s	BEAD, FERRITE
FB2	1-543-309-21	s	BEAD, FERRITE
IC1	8-759-111-56	s	IC UPC4572G2
IC2	8-759-906-53	s	IC TL062CPS
IC21	8-759-209-15	s	IC TC4SU69F
IC22	8-759-300-71	s	IC MC14053BF
IC23	8-759-111-56	s	IC UPC4572G2
Q21	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q22	8-729-117-32	s	TRANSISTOR 2SC4177
Q23	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q51	8-729-106-68	s	TRANSISTOR 2SC1615A-GP
Q52	8-729-109-44	s	TRANSISTOR 2SK94
RV1	1-228-475-00	s	RES, ADJ, METAL 20K
RV2	1-228-475-00	s	RES, ADJ, METAL 20K
RV11	1-228-475-00	s	RES, ADJ, METAL 20K
RV12	1-228-475-00	s	RES, ADJ, METAL 20K

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

TC-48A/48B BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6713-368-A	o	MOUNTED CIRCUIT BOARD, TC-48A Serial No. UP TO 30180(BVW-400A;J) Serial No. UP TO 10147(BVW-400A;UC)
1pc	A-8271-733-A	o	MOUNTED CIRCUIT BOARD, TC-48B Serial No. 30181 AND HIGHER(BVW-400A;J) Serial No. 10148 AND HIGHER(BVW-400A;UC)
BT1	1-528-292-11	o	BATTERY, SUPER LITHIUM
C1	1-163-037-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C3	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C4	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C6	1-126-412-11	s	ELECT 220uF 20% 4V
C7	1-126-402-11	s	ELECT, CHIP 2.2uF 20% 50V
C10	1-163-037-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C103	1-126-403-11	s	ELECT 3.3uF 20% 50V
C104	1-126-404-11	s	ELECT 4.7uF 20% 50V
C105	1-126-404-11	s	ELECT 4.7uF 20% 50V
C106	1-163-227-11	s	CERAMIC 10PF 5% 50V
C107	1-163-227-11	s	CERAMIC 10PF 5% 50V
C110	1-163-243-11	s	CERAMIC 47PF 5% 50V
C112	1-135-157-21	s	TANTAL 10uF 10% 6.3V
C115	1-135-157-21	s	TANTAL 10uF 10% 6.3V
C203	1-126-403-11	s	ELECT 3.3uF 20% 50V
C204	1-126-404-11	s	ELECT 4.7uF 20% 50V
C205	1-126-404-11	s	ELECT 4.7uF 20% 50V
C206	1-163-227-11	s	CERAMIC 10PF 5% 50V
C207	1-163-227-11	s	CERAMIC 10PF 5% 50V
C210	1-163-243-11	s	CERAMIC 47PF 5% 50V
C212	1-135-157-21	s	TANTAL 10uF 10% 6.3V
C215	1-135-157-21	s	TANTAL 10uF 10% 6.3V
C301	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C303	1-163-251-11	s	CERAMIC 100PF 5% 50V
C304	1-135-180-21	s	TANTAL 3.3uF 20% 6.3V
C307	1-135-180-21	s	TANTAL 3.3uF 20% 6.3V
C401	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C403	1-163-251-11	s	CERAMIC 100PF 5% 50V
C404	1-135-180-21	s	TANTAL 3.3uF 20% 6.3V
C407	1-135-180-21	s	TANTAL 3.3uF 20% 6.3V
C520	1-125-447-11	s	DOUBLE LAYERS 1FARAD 5.5V
C524	1-163-235-11	s	CERAMIC 22PF 5% 50V
C525	1-163-235-11	s	CERAMIC 22PF 5% 50V
C526	1-163-239-11	s	CERAMIC 33PF 5% 50V
C527	1-163-239-11	s	CERAMIC 33PF 5% 50V
C528	1-163-229-11	s	CERAMIC 12PF 5% 50V
C529	1-163-245-11	s	CERAMIC 56PF 5% 50V
C530	1-163-229-11	s	CERAMIC 12PF 5% 50V
C531	1-163-229-11	s	CERAMIC 12PF 5% 50V
C549	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C553	1-163-243-11	s	CERAMIC 47PF 5% 50V
C566	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C567	1-124-471-00	s	ELECT 1000uF 20% 6.3V
C570	1-127-485-00	s	ELECT(SOLID) 33uF 20% 6.3V
CN1	1-566-528-21	s	CONNECTOR, FPC (ZIF) 12P Serial No. UP TO 30180(BVW-400A;J) Serial No. UP TO 10147(BVW-400A;UC)
CN1	1-695-903-21	s	CONNECTOR 12P Serial No. 30181 AND HIGHER(BVW-400A;J) Serial No. 10148 AND HIGHER(BVW-400A;UC)
CN2	1-566-536-11	s	CONNECTOR, 20P

(TC-48A/48B BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
CN3	1-566-536-11	s	CONNECTOR, 20P
CN10	1-506-485-11	o	CONNECTOR, 6P, MALE
CN11	1-506-481-11	o	CONNECTOR, 2P, MALE
D101	8-719-800-76	s	DIODE 1SS226
D102	8-719-800-76	s	DIODE 1SS226
D103	8-719-941-23	s	DIODE DA204U
D104	8-719-404-35	s	DIODE MA141WK
D201	8-719-800-76	s	DIODE 1SS226
D202	8-719-800-76	s	DIODE 1SS226
D203	8-719-941-23	s	DIODE DA204U
D301	8-719-941-23	s	DIODE DA204U
D401	8-719-941-23	s	DIODE DA204U
D508	8-719-938-72	s	DIODE SB01-05CP
D511	8-719-941-86	s	DIODE DAN202U
D514	8-719-941-86	s	DIODE DAN202U
D515	8-719-941-86	s	DIODE DAN202U
D522	8-719-902-27	s	LED EBR3402S, RED
D523	8-719-941-86	s	DIODE DAN202U
D524	8-719-938-72	s	DIODE SB01-05CP
D525	8-719-938-72	s	DIODE SB01-05CP
D526	8-719-404-35	s	DIODE MA141WK
D527	8-719-404-35	s	DIODE MA141WK
D528	8-719-404-35	s	DIODE MA141WK
D529	8-719-404-35	s	DIODE MA141WK
D530	8-719-938-72	s	DIODE SB01-05CP
IC1	8-759-700-50	s	IC NJM386M
IC1	8-759-942-44	s	IC CXD1128Q
IC101	8-759-981-54	s	IC RC2041MD
IC102	8-759-981-54	s	IC RC2041MD
IC103	8-759-908-16	s	IC TL072CPS
IC201	8-759-981-54	s	IC RC2041MD
IC202	8-759-981-54	s	IC RC2041MD
IC203	8-759-908-16	s	IC TL072CPS
IC301	8-759-300-71	s	IC MC14053BF
IC302	8-759-906-53	s	IC TL062CPS
IC303	8-759-908-16	s	IC TL072CPS
IC401	8-759-300-71	s	IC MC14053BF
IC403	8-759-908-16	s	IC TL072CPS
IC501	8-759-944-79	s	IC CXD1132Q
IC502	8-759-146-73	s	IC CXD8042Q-502
IC503	8-752-810-17	s	IC CXP80116-617Q
IC504	8-759-112-06	s	IC UPC78N05H
IC505	8-759-443-74	s	IC RH5VL28CA
IC506	8-759-008-82	s	IC MC14013BF
IC507	8-759-009-12	s	IC MC14071BF
IC508	8-759-300-71	s	IC MC14053BF
IC509	8-759-009-02	s	IC MC14046BF
IC510	8-759-008-36	s	IC MC74HC4049F
IC511	8-759-009-10	s	IC MC14069UBF
IC512	8-759-008-82	s	IC MC14013BF
IC513	8-759-009-51	s	IC MC14538BF
IC514	8-759-209-15	s	IC TC4SU69F
IC515	8-752-330-59	s	IC CXK1011P
IC516	1-808-502-11	s	LCD MODULE LT4115
IC517	8-759-009-12	s	IC MC14071BF
IC518	8-759-939-41	s	IC S-81230AG-RB
IC519	8-759-209-15	s	IC TC4SU69F

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(TC-48A/48B BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
IC520	8-759-209-97	s	IC TC4S81F
IC521	8-759-209-54	s	IC TC4S01F
IC522	8-759-209-15	s	IC TC4SU69F
IC523	8-759-209-90	s	IC TC4S71F
IC701	8-759-701-01	s	IC NJM2904M
IC702	8-759-908-16	s	IC TL072CPS
IC703	8-759-939-41	s	IC S-81230AG-RB
L1	1-410-729-21	s	INDUCTOR, CHIP 1mH
L101	1-408-776-00	s	INDUCTOR CHIP 8.2uH
L102	1-408-776-00	s	INDUCTOR CHIP 8.2uH
L201	1-408-776-00	s	INDUCTOR CHIP 8.2uH
L202	1-408-776-00	s	INDUCTOR CHIP 8.2uH
PH1	1-808-252-11	s	PHOTOCOUPLER M-30
Q101	8-729-271-31	s	TRANSISTOR 2SC2713G
Q102	8-729-117-32	s	TRANSISTOR 2SC4177
Q103	8-729-905-18	s	TRANSISTOR DTC144EU
Q104	8-729-117-32	s	TRANSISTOR 2SC4177
Q105	8-729-117-32	s	TRANSISTOR 2SC4177
Q106	8-729-117-32	s	TRANSISTOR 2SC4177
Q107	8-729-117-32	s	TRANSISTOR 2SC4177
Q201	8-729-271-31	s	TRANSISTOR 2SC2713G
Q202	8-729-117-32	s	TRANSISTOR 2SC4177
Q203	8-729-905-18	s	TRANSISTOR DTC144EU
Q204	8-729-117-32	s	TRANSISTOR 2SC4177
Q205	8-729-117-32	s	TRANSISTOR 2SC4177
Q206	8-729-117-32	s	TRANSISTOR 2SC4177
Q207	8-729-117-32	s	TRANSISTOR 2SC4177
Q501	8-729-905-18	s	TRANSISTOR DTC144EU
Q502	8-729-905-18	s	TRANSISTOR DTC144EU
Q503	8-729-907-00	s	TRANSISTOR DTC114EU
Q504	8-729-905-18	s	TRANSISTOR DTC144EU
Q509	8-729-905-18	s	TRANSISTOR DTC144EU
Q510	8-729-106-68	s	TRANSISTOR 2SC1615A-GP
Q511	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q512	8-729-905-18	s	TRANSISTOR DTC144EU
Q701	8-729-905-18	s	TRANSISTOR DTC144EU
Q702	8-729-117-32	s	TRANSISTOR 2SC4177
R1	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R3	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R101	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R102	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R103	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R104	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R105	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R106	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R107	1-216-631-11	s	METAL, CHIP 150 0.5% 1/10W
R108	1-216-631-11	s	METAL, CHIP 150 0.5% 1/10W
R110	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R111	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R112	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R113	1-216-638-11	s	METAL, CHIP 300 0.5% 1/10W
R114	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R115	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R116	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R117	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R118	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R119	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W

(TC-48A/48B BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R120	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R121	1-216-655-11	s	METAL, CHIP 1.5K 0.5% 1/10W
R123	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R125	1-216-643-11	s	METAL, CHIP 470 0.5% 1/10W
R126	1-216-681-11	s	METAL, CHIP 18K 0.5% 1/10W
R128	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R129	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W
R130	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R131	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R132	1-216-661-11	s	METAL, CHIP 2.7K 0.5% 1/10W
R133	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R135	1-216-643-11	s	METAL, CHIP 470 0.5% 1/10W
R136	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R137	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R138	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R139	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W
R140	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R141	1-216-677-11	s	METAL, CHIP 12K 0.5% 1/10W
R143	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R201	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R202	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R203	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R204	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R205	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R206	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R207	1-216-631-11	s	METAL, CHIP 150 0.5% 1/10W
R208	1-216-631-11	s	METAL, CHIP 150 0.5% 1/10W
R210	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R211	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R212	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R213	1-216-638-11	s	METAL, CHIP 300 0.5% 1/10W
R214	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R215	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R216	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R217	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R218	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R219	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R220	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R221	1-216-655-11	s	METAL, CHIP 1.5K 0.5% 1/10W
R223	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R225	1-216-643-11	s	METAL, CHIP 470 0.5% 1/10W
R226	1-216-681-11	s	METAL, CHIP 18K 0.5% 1/10W
R228	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R229	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W
R230	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R231	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R232	1-216-661-11	s	METAL, CHIP 2.7K 0.5% 1/10W
R233	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R235	1-216-643-11	s	METAL, CHIP 470 0.5% 1/10W
R236	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R237	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R238	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R239	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W
R240	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R241	1-216-677-11	s	METAL, CHIP 12K 0.5% 1/10W
R243	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R303	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R306	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(TC-48A/48B BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R310	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R313	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R403	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R406	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R410	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R413	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R505	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R506	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R507	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R515	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R521	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R523	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R538	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R542	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R543	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R605	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R611	1-249-397-11	s	CARBON 22 5% 1/4W
R612	1-249-397-11	s	CARBON 22 5% 1/4W
R617	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R618	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R619	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R623	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R626	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R629	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R630	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R631	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R632	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R639	1-249-397-11	s	CARBON 22 5% 1/4W
R641	1-249-393-11	s	CARBON 10 5% 1/4W
R642	1-249-393-11	s	CARBON 10 5% 1/4W
R644	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R653	1-247-895-00	s	CARBON 470K 5% 1/4W
R701	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R703	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R708	1-216-668-11	s	METAL, CHIP 5.1K 0.5% 1/10W
R709	1-216-669-11	s	METAL, CHIP 5.6K 0.5% 1/10W
R711	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R712	1-216-681-11	s	METAL, CHIP 18K 0.5% 1/10W
R714	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R717	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R719	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
RV101	1-230-337-11	s	RES, VAR, CARBON 10K
RV201	1-230-337-11	s	RES, VAR, CARBON 10K
RV301	1-230-871-11	s	RES, ADJ, METAL 22K
RV302	1-230-871-11	s	RES, ADJ, METAL 22K
RV401	1-230-871-11	s	RES, ADJ, METAL 22K
RV402	1-230-871-11	s	RES, ADJ, METAL 22K
RV701	1-230-874-11	s	RES, ADJ, METAL 100K
RV702	1-230-869-11	s	RES, ADJ, METAL 4.7K
S101	1-571-087-11	s	SWITCH, SLIDE
S102	1-570-848-11	s	SWITCH, SLIDE
S103	1-571-275-11	s	SWITCH, SLIDE
S201	1-571-087-11	s	SWITCH, SLIDE
S202	1-570-848-11	s	SWITCH, SLIDE
S203	1-571-275-11	s	SWITCH, SLIDE
S501	1-570-834-11	s	SWITCH, SLIDE
S502	1-570-834-11	s	SWITCH, SLIDE
S503	1-570-472-11	s	SWITCH, KEY BOARD
S504	1-570-472-11	s	SWITCH, KEY BOARD
S505	1-570-472-11	s	SWITCH, KEY BOARD
S506	1-570-472-11	s	SWITCH, KEY BOARD
S507	1-570-860-11	s	SWITCH, SLIDE
S508	1-570-834-11	s	SWITCH, SLIDE
S509	1-570-866-11	s	SWITCH, SLIDE
S510	1-570-860-11	s	SWITCH, SLIDE
S511	1-571-275-11	s	SWITCH, SLIDE
S513	1-570-472-11	s	SWITCH, KEY BOARD
S514	1-570-860-11	s	SWITCH, SLIDE
S515	1-571-273-11	s	SWITCH, DIGITAL
S516	1-571-273-11	s	SWITCH, DIGITAL
S517	1-571-275-11	s	SWITCH, SLIDE
S518	1-571-275-11	s	SWITCH, SLIDE
S701	1-570-855-11	s	SWITCH, SLIDE
X501	1-567-866-11	s	CRYSTAL, 14.31818MHz
X502	1-567-812-11	s	RESONATOR, CERAMIC 12.288MHz
X503	1-578-742-11	s	VIBRATOR, CRYSTAL 31.4685KHz
X504	1-577-076-11	s	CRYSTAL, 16.000MHz

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

VA-104 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-7515-147-A	o	MOUNTED CIRCUIT BOARD, VA-104
2pcs	1-568-613-11	o	CONNECTOR, FEMAIL, 2P
1pc	3-724-711-02	o	PLATE (VA-62), ORNAMENTAL
1pc	3-724-753-01	o	RING
5pcs	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
1pc	7-688-001-12	s	W 2, MIDDLE
3pcs	3-621-124-00	s	SPACER
1pc	3-172-056-02	o	PARTITION
2pcs	7-623-952-21	s	WASHER 2.0, FIBER
C1	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C10	1-131-395-00	s	TANTALUM 100uF 10% 3.15V
C12	1-126-320-11	s	ELECT, NONPOLAR 10uF 20% 16V
C16	1-163-241-11	s	CERAMIC, CHIP 39PF 5% 50V
C21	1-135-177-21	s	TANTALUM CHIP 1uF 10% 25V
C23	1-163-235-11	s	CERAMIC 22PF 5% 50V
C24	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C33	1-131-395-00	s	TANTALUM 100uF 10% 3.15V
C35	1-126-320-11	s	ELECT, NONPOLAR 10uF 20% 16V
C39	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C40	1-163-243-11	s	CERAMIC 47PF 5% 50V
C45	1-135-177-21	s	TANTALUM CHIP 1uF 10% 25V
C47	1-163-235-11	s	CERAMIC 22PF 5% 50V
C48	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C57	1-131-395-00	s	TANTALUM 100uF 10% 3.15V
C59	1-126-320-11	s	ELECT, NONPOLAR 10uF 20% 16V
C64	1-163-243-11	s	CERAMIC 47PF 5% 50V
C69	1-135-177-21	s	TANTALUM CHIP 1uF 10% 25V
C71	1-163-235-11	s	CERAMIC 22PF 5% 50V
C89	1-163-227-11	s	CERAMIC 10PF 5% 50V
C90	1-163-134-00	s	CERAMIC 510PF 5% 50V
C91	1-163-130-00	s	CERAMIC 360PF 5% 50V
C92	1-163-134-00	s	CERAMIC 510PF 5% 50V
C93	1-135-177-21	s	TANTALUM CHIP 1uF 10% 25V
C94	1-102-945-00	s	CERAMIC 8PF
C95	1-102-945-00	s	CERAMIC 8PF
C96	1-102-945-00	s	CERAMIC 8PF
C114	1-163-809-11	s	CERAMIC, CHIP 0.047uF 10% 25V
CN1	1-566-960-11	o	CONNECTOR, 50P, MALE
CV1	1-141-448-21	s	CAP, ADJ
CV2	1-141-448-21	s	CAP, ADJ
CV3	1-141-370-11	s	CAP, CHIP TRIMMER
D1	8-719-800-76	s	DIODE 1SS226
D2	8-719-800-76	s	DIODE 1SS226
D3	8-719-948-47	s	DIODE HSM88AS
D5	8-719-800-76	s	DIODE 1SS226
D6	8-719-948-47	s	DIODE HSM88AS
D7	8-719-800-76	s	DIODE 1SS226
D9	8-719-800-76	s	DIODE 1SS226
D10	8-719-948-47	s	DIODE HSM88AS
D14	8-719-948-47	s	DIODE HSM88AS
D15	8-719-948-47	s	DIODE HSM88AS
D16	8-719-948-47	s	DIODE HSM88AS
D17	8-719-400-18	s	DIODE MA152WK
DL1	1-415-754-11	s	DELAY LINE
FL1	1-409-427-11	s	FILTER, TRAP 14.3MHz
FL2	1-409-427-11	s	FILTER, TRAP 14.3MHz

(VA-104 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
FL3	1-409-427-11	s	FILTER, TRAP 14.3MHz
IC1	8-759-988-42	s	IC AD707JR
IC2	1-807-415-11	s	IC BH-1210
IC3	1-808-806-11	s	IC BH-1262
IC4	8-759-906-54	s	IC TL064CNS
IC5	8-759-988-42	s	IC AD707JR
IC6	1-807-415-11	s	IC BH-1210
IC7	1-808-806-11	s	IC BH-1262
IC8	8-759-988-42	s	IC AD707JR
IC9	1-807-415-11	s	IC BH-1210
IC10	1-808-806-11	s	IC BH-1262
IC12	8-759-300-71	s	IC MC14053BF
IC13	8-759-906-53	s	IC TL062CPS
IC15	1-809-026-11	s	IC BH-1263
IC16	8-759-209-57	s	IC TC4S69F
IC17	8-759-234-20	s	IC TC7S08F
Q1	8-729-403-32	s	TRANSISTOR XN6534
Q2	8-729-403-29	s	TRANSISTOR XN6435
Q3	8-729-403-29	s	TRANSISTOR XN6435
Q4	8-729-403-29	s	TRANSISTOR XN6435
Q5	8-729-109-44	s	TRANSISTOR 2SK94
Q6	8-729-109-44	s	TRANSISTOR 2SK94
Q7	8-729-109-44	s	TRANSISTOR 2SK94
Q8	8-729-109-44	s	TRANSISTOR 2SK94
Q9	8-729-109-44	s	TRANSISTOR 2SK94
Q10	8-729-109-44	s	TRANSISTOR 2SK94
Q11	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q12	8-729-122-63	s	TRANSISTOR 2SA1226
Q13	8-729-403-29	s	TRANSISTOR XN6435
Q14	8-729-403-29	s	TRANSISTOR XN6435
Q15	8-729-403-29	s	TRANSISTOR XN6435
Q16	8-729-109-44	s	TRANSISTOR 2SK94
Q17	8-729-109-44	s	TRANSISTOR 2SK94
Q18	8-729-109-44	s	TRANSISTOR 2SK94
Q19	8-729-109-44	s	TRANSISTOR 2SK94
Q20	8-729-109-44	s	TRANSISTOR 2SK94
Q21	8-729-109-44	s	TRANSISTOR 2SK94
Q22	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q23	8-729-403-32	s	TRANSISTOR XN6534
Q24	8-729-403-29	s	TRANSISTOR XN6435
Q25	8-729-403-29	s	TRANSISTOR XN6435
Q26	8-729-403-29	s	TRANSISTOR XN6435
Q27	8-729-109-44	s	TRANSISTOR 2SK94
Q28	8-729-109-44	s	TRANSISTOR 2SK94
Q29	8-729-109-44	s	TRANSISTOR 2SK94
Q30	8-729-109-44	s	TRANSISTOR 2SK94
Q31	8-729-109-44	s	TRANSISTOR 2SK94
Q32	8-729-109-44	s	TRANSISTOR 2SK94
Q33	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q34	8-729-216-22	s	TRANSISTOR 2SA1162
Q35	8-729-216-22	s	TRANSISTOR 2SA1162
Q36	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q45	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q48	8-729-109-44	s	TRANSISTOR 2SK94
Q49	8-729-216-22	s	TRANSISTOR 2SA1162
Q50	8-729-216-22	s	TRANSISTOR 2SA1162
Q51	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q52	8-729-175-72	s	TRANSISTOR 2SC2757-T33

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(VA-104 BOARD)

Ref. No. or Q' ty	Part No.	SP	Description
Q53	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q54	8-729-403-29	s	TRANSISTOR XN6435
R1	1-216-649-11	s	METAL, CHIP 820 0.5% 1/10W
R4	1-216-655-11	s	METAL, CHIP 1.5K 0.5% 1/10W
R5	1-216-643-11	s	METAL, CHIP 470 0.5% 1/10W
R6	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
R8	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R9	1-216-661-11	s	METAL, CHIP 2.7K 0.5% 1/10W
R11	1-216-670-11	s	METAL, CHIP 6.2K 0.5% 1/10W
R16	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R17	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R18	1-216-635-11	s	METAL, CHIP 220 0.5% 1/10W
R19	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R21	1-216-663-11	s	METAL, CHIP 3.3K 0.5% 1/10W
R22	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R24	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R34	1-216-645-11	s	METAL, CHIP 560 0.5% 1/10W
R39	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R44	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R45	1-216-649-11	s	METAL, CHIP 820 0.5% 1/10W
R47	1-216-639-11	s	METAL, CHIP 330 0.5% 1/10W
R48	1-216-639-11	s	METAL, CHIP 330 0.5% 1/10W
R49	1-216-642-11	s	METAL, CHIP 430 0.5% 1/10W
R50	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
R51	1-216-655-11	s	METAL, CHIP 1.5K 0.5% 1/10W
R52	1-216-655-11	s	METAL, CHIP 1.5K 0.5% 1/10W
R53	1-216-663-11	s	METAL, CHIP 3.3K 0.5% 1/10W
R55	1-216-670-11	s	METAL, CHIP 6.2K 0.5% 1/10W
R60	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R61	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R62	1-216-635-11	s	METAL, CHIP 220 0.5% 1/10W
R63	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R65	1-216-663-11	s	METAL, CHIP 3.3K 0.5% 1/10W
R66	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R68	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R78	1-216-645-11	s	METAL, CHIP 560 0.5% 1/10W
R85	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R90	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R91	1-216-649-11	s	METAL, CHIP 820 0.5% 1/10W
R94	1-216-655-11	s	METAL, CHIP 1.5K 0.5% 1/10W
R95	1-216-639-11	s	METAL, CHIP 330 0.5% 1/10W
R96	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
R98	1-216-662-11	s	METAL, CHIP 3K 0.5% 1/10W
R99	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R101	1-216-670-11	s	METAL, CHIP 6.2K 0.5% 1/10W
R106	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R107	1-216-665-11	s	METAL, CHIP 3.9K 0.5% 1/10W
R108	1-216-635-11	s	METAL, CHIP 220 0.5% 1/10W
R109	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R111	1-216-663-11	s	METAL, CHIP 3.3K 0.5% 1/10W
R112	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R114	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R126	1-216-645-11	s	METAL, CHIP 560 0.5% 1/10W
R131	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R136	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R173	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R174	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R175	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R181	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R182	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R183	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R187	1-216-655-11	s	METAL, CHIP 1.5K 0.5% 1/10W
R191	1-216-102-00	s	METAL 160K 0.50% 1/10W
R193	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R211	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R212	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R213	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
R214	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R215	1-216-651-11	s	METAL 1K 1% 1/6W
R216	1-215-442-00	s	METAL, CHIP 7.5K
R217	1-215-442-00	s	METAL, CHIP 7.5K
R218	1-215-442-00	s	METAL, CHIP 7.5K
RV1	1-228-472-00	s	RES, ADJ, METAL 2K
RV2	1-237-037-11	s	RES, ADJ, METAL 20K
RV3	1-237-036-11	s	RES, ADJ, METAL 10K
RV4	1-228-475-00	s	RES, ADJ, METAL 20K
RV5	1-228-472-00	s	RES, ADJ, METAL 2K
RV6	1-237-037-11	s	RES, ADJ, METAL 20K
RV7	1-237-036-11	s	RES, ADJ, METAL 10K
RV8	1-228-475-00	s	RES, ADJ, METAL 20K
RV9	1-228-472-00	s	RES, ADJ, METAL 2K
RV10	1-237-037-11	s	RES, ADJ, METAL 20K
RV11	1-237-036-11	s	RES, ADJ, METAL 10K
RV12	1-228-475-00	s	RES, ADJ, METAL 20K
RV15	1-237-034-11	s	RES, ADJ, METAL 2K
RV16	1-237-034-11	s	RES, ADJ, METAL 2K
RV17	1-237-034-11	s	RES, ADJ, METAL 2K
RV18	1-237-036-11	s	RES, ADJ, METAL 10K
RV19	1-237-036-11	s	RES, ADJ, METAL 10K
RV20	1-237-036-11	s	RES, ADJ, METAL 10K
RV21	1-237-037-11	s	RES, ADJ, METAL 20K
RV22	1-237-037-11	s	RES, ADJ, METAL 20K
S1	1-570-857-11	s	SWITCH, SLIDE
S2	1-572-446-21	s	SWITCH, ROTARY

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

VDA-11 BOARD

(Serial No. 30001 through 30935 (J)
10001 through 11053 (UC))

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6711-933-B	o	MOUNTED CIRCUIT BOARD, VDA-11
1pc	3-724-707-01	o	PLATE (VDA-11), ORNAMENTAL
1pc	3-724-753-01	o	RING
1pc	7-688-001-12	s	W 2, MIDDLE
5pcs	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
C1	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C2	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C3	1-163-115-00	s	CERAMIC, CHIP 82PF 5% 50V
C4	1-163-251-11	s	CERAMIC 100PF 5% 50V
C5	1-163-239-11	s	CERAMIC 33PF 5% 50V
C6	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C8	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C11	1-163-239-11	s	CERAMIC 33PF 5% 50V
C16	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C17	1-163-251-11	s	CERAMIC 100PF 5% 50V
C107	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C110	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C116	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C201	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C203	1-135-164-21	s	TANTAL 22uF 20% 10V
C205	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C207	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C209	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C210	1-163-251-11	s	CERAMIC 100PF 5% 50V
C213	1-163-243-11	s	CERAMIC 47PF 5% 50V
C214	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C217	1-163-243-11	s	CERAMIC 47PF 5% 50V
C219	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C220	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C221	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C225	1-163-239-11	s	CERAMIC 33PF 5% 50V
C226	1-163-239-11	s	CERAMIC 33PF 5% 50V
C227	1-135-164-21	s	TANTAL 22uF 20% 10V
C228	1-163-227-11	s	CERAMIC 10PF 5% 50V
C229	1-163-227-11	s	CERAMIC 10PF 5% 50V
CN1	1-566-960-11	o	CONNECTOR, 50P, MALE
CN2	1-566-388-11	s	CONNECTOR, 8P, MALE
CNJ2	1-565-413-11	o	PLUG, SHORTING
CV1	1-141-423-61	s	CAP, ADJ
CV2	1-141-423-61	s	CAP, ADJ
CV3	1-141-423-61	s	CAP, ADJ
CV4	1-141-423-61	s	CAP, ADJ
CV11	1-141-423-61	s	CAP, ADJ
CV12	1-141-423-61	s	CAP, ADJ
CV13	1-141-423-61	s	CAP, ADJ
CV14	1-141-423-61	s	CAP, ADJ
D201	8-719-123-85	s	DIODE 1SS304
D301	8-719-105-82	s	DIODE RD5.1M-B2
FL1	1-236-021-11	s	FILTER, LOW-PASS
FL2	1-236-126-12	s	FILTER, LOW PASS
FL202	1-236-621-11	s	FILTER, LOW PASS
FL203	1-236-621-11	s	FILTER, LOW PASS
IC1	8-759-209-15	s	IC TC4SU69F
IC2	8-741-152-41	s	IC SBX1524-21
IC3	8-759-209-15	s	IC TC4SU69F
IC101	8-759-209-15	s	IC TC4SU69F
IC201	8-741-152-32	s	IC SBX1523-03
IC301	8-759-230-99	s	IC TC74HC4053AF
L1	1-408-789-21	s	CHIP 100uH
L2	1-408-789-21	s	CHIP 100uH
L3	1-408-777-00	s	CHIP 10uH
L4	1-408-785-21	s	CHIP 47uH
L101	1-408-789-21	s	CHIP 100uH
L103	1-408-797-11	s	CHIP 470uH
L104	1-408-797-11	s	CHIP 470uH
L105	1-408-789-21	s	CHIP 100uH
L106	1-408-789-21	s	CHIP 100uH
L202	1-408-789-21	s	CHIP 100uH
L203	1-408-785-21	s	CHIP 47uH
L204	1-408-785-21	s	CHIP 47uH
L205	1-408-789-21	s	CHIP 100uH
L206	1-410-385-11	s	INDUCTOR, CHIP 22uH
LV201	1-412-018-11	s	COIL, VAR 5.6uH
Q1	8-729-905-18	s	TRANSISTOR DTC144EU
Q2	8-729-905-18	s	TRANSISTOR DTC144EU
Q3	8-729-122-63	s	TRANSISTOR 2SA1226
Q4	8-729-122-63	s	TRANSISTOR 2SA1226
Q5	8-729-117-32	s	TRANSISTOR 2SC4177
Q6	8-729-117-32	s	TRANSISTOR 2SC4177
Q7	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q8	8-729-117-72	s	TRANSISTOR 2SC4178
Q9	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q10	8-729-905-18	s	TRANSISTOR DTC144EU
Q11	8-729-117-72	s	TRANSISTOR 2SC4178
Q12	8-729-905-12	s	TRANSISTOR DTA144EU
Q101	8-729-117-72	s	TRANSISTOR 2SC4178
Q106	8-729-117-72	s	TRANSISTOR 2SC4178
Q107	8-729-117-72	s	TRANSISTOR 2SC4178
Q108	8-729-109-44	s	TRANSISTOR 2SK94
Q109	8-729-109-44	s	TRANSISTOR 2SK94
Q110	8-729-109-44	s	TRANSISTOR 2SK94
Q111	8-729-109-44	s	TRANSISTOR 2SK94
Q112	8-729-117-72	s	TRANSISTOR 2SC4178
Q114	8-729-117-72	s	TRANSISTOR 2SC4178
Q115	8-729-117-72	s	TRANSISTOR 2SC4178
Q116	8-729-117-72	s	TRANSISTOR 2SC4178
Q117	8-729-905-12	s	TRANSISTOR DTA144EU
Q118	8-729-905-12	s	TRANSISTOR DTA144EU
Q120	8-729-117-32	s	TRANSISTOR 2SC4177
Q121	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q122	8-729-117-32	s	TRANSISTOR 2SC4177
Q123	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q131	8-729-109-44	s	TRANSISTOR 2SK94
Q132	8-729-109-44	s	TRANSISTOR 2SK94
Q133	8-729-109-44	s	TRANSISTOR 2SK94
Q134	8-729-109-44	s	TRANSISTOR 2SK94
Q153	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q154	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q155	8-729-117-32	s	TRANSISTOR 2SC4177
Q156	8-729-117-72	s	TRANSISTOR 2SC4178
Q157	8-729-117-72	s	TRANSISTOR 2SC4178
Q158	8-729-109-44	s	TRANSISTOR 2SK94
Q159	8-729-109-44	s	TRANSISTOR 2SK94
Q160	8-729-109-44	s	TRANSISTOR 2SK94

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(VDA-11 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q161	8-729-109-44	s	TRANSISTOR 2SK94
Q201	8-729-117-32	s	TRANSISTOR 2SC4177
Q202	8-729-117-32	s	TRANSISTOR 2SC4177
Q203	8-729-117-32	s	TRANSISTOR 2SC4177
Q204	8-729-117-32	s	TRANSISTOR 2SC4177
Q205	8-729-117-32	s	TRANSISTOR 2SC4177
Q206	8-729-117-32	s	TRANSISTOR 2SC4177
Q207	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q208	8-729-117-32	s	TRANSISTOR 2SC4177
Q209	8-729-117-32	s	TRANSISTOR 2SC4177
Q210	8-729-117-32	s	TRANSISTOR 2SC4177
Q211	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q301	8-729-101-07	s	TRANSISTOR 2SB798
Q303	8-729-807-50	s	TRANSISTOR 2SD1623
R1	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R2	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R3	1-216-835-11	s	METAL, CHIP 15K 5% 1/16W
R4	1-216-840-11	s	METAL, CHIP 39K 5% 1/16W
R5	1-216-670-11	s	METAL, CHIP 6.2K 0.5% 1/10W
R6	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
R7	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R8	1-216-830-11	s	METAL, CHIP 5.6K 5% 1/16W
R9	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R10	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R11	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R12	1-218-297-11	s	METAL, CHIP 680 1% 1/16W
R13	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R14	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R15	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R16	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R17	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R18	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R19	1-216-826-11	s	METAL, CHIP 2.7K 5% 1/16W
R20	1-216-824-11	s	METAL, CHIP 1.8K 5% 1/16W
R21	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R22	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R23	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R24	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R25	1-216-838-11	s	METAL, CHIP 27K 5% 1/16W
R26	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R27	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R28	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R29	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R30	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R31	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R32	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R33	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R34	1-216-864-11	s	METAL, CHIP 0-OHM
R45	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R101	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R102	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R103	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R104	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R105	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R106	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R107	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R108	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R109	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R110	1-216-816-11	s	METAL, CHIP 390 5% 1/16W

(VDA-11 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R111	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R112	1-216-816-11	s	METAL, CHIP 390 5% 1/16W
R113	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R114	1-216-816-11	s	METAL, CHIP 390 5% 1/16W
R115	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R116	1-216-816-11	s	METAL, CHIP 390 5% 1/16W
R117	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R118	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R119	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R120	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R121	1-216-840-11	s	METAL, CHIP 39K 5% 1/16W
R122	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R123	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R124	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R125	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R126	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R127	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R128	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R129	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R130	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R131	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R132	1-218-289-11	s	METAL CHIP 510 5% 1/16W
R133	1-218-289-11	s	METAL CHIP 510 5% 1/16W
R134	1-218-288-11	s	METAL, CHIP 300 5% 1/16W
R136	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R138	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R140	1-218-303-11	s	METAL, CHIP 10K 1% 1/16W
R141	1-218-303-11	s	METAL, CHIP 10K 1% 1/16W
R142	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R143	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R144	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R145	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R146	1-216-812-11	s	METAL, CHIP 180 5% 1/16W
R147	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R148	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R149	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R150	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R151	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R160	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R161	1-216-818-11	s	METAL, CHIP 560 5% 1/16W
R162	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R163	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R164	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R165	1-216-830-11	s	METAL, CHIP 5.6K 5% 1/16W
R166	1-216-819-11	s	METAL, CHIP 680 5% 1/16W
R167	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R168	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R169	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R170	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R171	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R172	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R173	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R174	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R180	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R181	1-216-797-11	s	METAL, CHIP 10 5% 1/16W
R182	1-216-826-11	s	METAL, CHIP 2.7K 5% 1/16W
R183	1-216-797-11	s	METAL, CHIP 10 5% 1/16W
R184	1-216-826-11	s	METAL, CHIP 2.7K 5% 1/16W
R185	1-216-864-11	s	METAL, CHIP 0-OHM

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(VDA-11 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R186	1-216-789-11	s	METAL CHIP 2.2 5% 1/16W
R187	1-216-789-11	s	METAL CHIP 2.2 5% 1/16W
R188	1-216-789-11	s	METAL CHIP 2.2 5% 1/16W
R189	1-216-789-11	s	METAL CHIP 2.2 5% 1/16W
R190	1-216-864-11	s	METAL, CHIP 0-OHM
R191	1-216-816-11	s	METAL, CHIP 390 5% 1/16W
R201	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R202	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R203	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R204	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R205	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R206	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R207	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R208	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R209	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R210	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R211	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R212	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R213	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R214	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R215	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R216	1-216-836-11	s	METAL, CHIP 18K 5% 1/16W
R217	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R218	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R219	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R220	1-216-864-11	s	METAL, CHIP 0-OHM
R222	1-216-830-11	s	METAL, CHIP 5.6K 5% 1/16W
R223	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R224	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R226	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R227	1-216-840-11	s	METAL, CHIP 39K 5% 1/16W
R228	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R229	1-218-303-11	s	METAL, CHIP 10K 1% 1/16W
R230	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R231	1-216-834-11	s	METAL, CHIP 12K 5% 1/16W
R232	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R233	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R234	1-216-832-11	s	METAL, CHIP 8.2K 5% 1/16W
R236	1-216-830-11	s	METAL, CHIP 5.6K 5% 1/16W
R237	1-216-810-11	s	METAL, CHIP 120 5% 1/16W
R238	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R239	1-216-831-11	s	METAL, CHIP 6.8K 5% 1/16W
R240	1-216-831-11	s	METAL, CHIP 6.8K 5% 1/16W
R241	1-216-791-11	s	METAL CHIP 3.3 5% 1/16W
R242	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R243	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R244	1-216-830-11	s	METAL, CHIP 5.6K 5% 1/16W
R245	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R301	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R302	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R304	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R305	1-216-826-11	s	METAL, CHIP 2.7K 5% 1/16W
RV1	1-237-035-11	s	RES, ADJ, METAL 5K
RV2	1-237-035-11	s	RES, ADJ, METAL 5K
RV3	1-237-034-11	s	RES, ADJ, METAL 2K
RV4	1-237-039-11	s	RES, ADJ, METAL 100K
RV5	1-237-034-11	s	RES, ADJ, METAL 2K
RV6	1-237-035-11	s	RES, ADJ, METAL 5K

(VDA-11 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
RV7	1-237-037-11	s	RES, ADJ, METAL 20K
RV101	1-237-035-11	s	RES, ADJ, METAL 5K
RV102	1-237-035-11	s	RES, ADJ, METAL 5K
RV103	1-237-035-11	s	RES, ADJ, METAL 5K
RV104	1-237-035-11	s	RES, ADJ, METAL 5K
RV105	1-237-032-11	s	RES, ADJ, METAL 500
RV107	1-230-867-11	s	RES, ADJ, METAL 1K
RV108	1-230-868-11	s	RES, ADJ, METAL 2.2K
RV201	1-237-035-11	s	RES, ADJ, METAL 5K
RV202	1-237-035-11	s	RES, ADJ, METAL 5K
RV203	1-237-038-11	s	RES, ADJ, METAL 50K
RV204	1-230-871-11	s	RES, ADJ, METAL 22K
RV205	1-237-033-11	s	RES, ADJ, METAL 1K
RV206	1-237-033-11	s	RES, ADJ, METAL 1K
RV208	1-230-871-11	s	RES, ADJ, METAL 22K
RV209	1-237-035-11	s	RES, ADJ, METAL 5K
RV210	1-237-035-11	s	RES, ADJ, METAL 5K
RV211	1-237-034-11	s	RES, ADJ, METAL 2K
RV212	1-237-036-11	s	RES, ADJ, METAL 10K
RV213	1-237-036-11	s	RES, ADJ, METAL 10K
TH1	1-808-862-21	s	THERMISTER (CHIP)

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

VDA-11 BOARD

(Serial No. 30936 and higher (J)
11054 and higher (UC))

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6711-933-C	o	MOUNTED CIRCUIT BOARD, VDA-11
1pc	3-724-707-01	o	PLATE (VDA-11), ORNAMENTAL
1pc	3-724-753-01	o	RING
1pc	7-688-001-12	s	W 2, MIDDLE
5pcs	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
C1	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C2	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C3	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C4	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
C6	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C7	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C8	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C9	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C10	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C11	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C12	1-162-917-11	s	CERAMIC, CHIP 15PF 5% 50V
C13	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C14	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C15	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C16	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C17	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
C101	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C103	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C104	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C105	1-162-963-11	s	CERAMIC, CHIP 680PF 10% 50V
C106	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C107	1-162-964-11	s	CERAMIC, CHIP 0.001uF 10% 50V
C109	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C110	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C111	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C112	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C113	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C114	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C115	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C116	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C119	1-164-315-11	s	CERAMIC, CHIP 470PF 5% 50V
C120	1-164-315-11	s	CERAMIC, CHIP 470PF 5% 50V
C121	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C122	1-164-217-11	s	CERAMIC, CHIP 150PF 5% 50V
C130	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C131	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C132	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C155	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C156	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C157	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C200	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C201	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C203	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C204	1-135-166-21	s	TANTALUM, CHIP 47uF 20% 10V
C205	1-135-177-21	s	TANTALUM, CHIP 1uF 20% 25V
C206	1-135-177-21	s	TANTALUM, CHIP 1uF 20% 25V
C207	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C208	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
C209	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C210	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C211	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C212	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C213	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C214	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C220	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V

(VDA-11 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C221	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C223	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C224	1-135-166-21	s	TANTALUM, CHIP 47uF 20% 10V
C225	1-135-177-21	s	TANTALUM, CHIP 1uF 20% 25V
C226	1-135-177-21	s	TANTALUM, CHIP 1uF 20% 25V
C227	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C228	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
C229	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C230	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C231	1-107-826-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C232	1-164-227-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C233	1-107-826-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C234	1-164-227-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C235	1-164-227-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C236	1-164-227-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C237	1-164-227-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C238	1-164-227-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C239	1-164-227-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C240	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C241	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C242	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C243	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C244	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C245	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C246	1-162-924-11	s	CERAMIC, CHIP 56PF 5% 50V
C247	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C248	1-135-157-21	s	TANTALUM, CHIP 10uF 10% 6.3V
C249	1-162-959-11	s	TANTALUM, CHIP 330PF 5% 50V
C250	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
C251	1-107-826-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C252	1-107-826-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C253	1-164-315-11	s	CERAMIC, CHIP 470PF 5% 50V
C254	1-162-917-11	s	CERAMIC, CHIP 15PF 5% 50V
C255	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C256	1-162-919-11	s	CERAMIC, CHIP 22uF 5% 50V
C257	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C258	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C259	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C261	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C262	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C271	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C272	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C273	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C274	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
C275	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
C280	1-162-871-11	s	CERAMIC, CHIP 47PF
C301	1-164-360-11	s	CERAMIC, CHIP 0.1uF 10% 16V
CN1	1-566-960-11	o	CONNECTOR, 50P, MALE
CN2	1-566-388-11	s	CONNECTOR, 2P, MALE
CNJ2	1-565-413-11	o	CONNECTOR 2P
CV1	1-141-311-11	s	CAP, ADJ
CV2	1-141-311-11	s	CAP, ADJ
CV3	1-141-311-11	s	CAP, ADJ
CV4	1-141-311-11	s	CAP, ADJ
CV11	1-141-311-11	s	CAP, ADJ
CV12	1-141-311-11	s	CAP, ADJ
CV13	1-141-311-11	s	CAP, ADJ
CV14	1-141-311-11	s	CAP, ADJ

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(VDA-11 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
D200	8-719-941-23	s	DIODE DA204UT106
D201	8-719-821-39	s	DIODE 1SV160
FL1	1-236-021-21	s	FILTER, LOW-PASS
FL2	1-236-126-12	s	FILTER, LOW PASS
FL200	1-236-621-11	s	FILTER, LOW PASS
FL201	1-236-621-11	s	FILTER, LOW PASS
IC1	8-759-209-15	s	IC TC4SU69F
IC2	8-741-152-41	s	IC SBX1524-21
IC3	8-759-209-15	s	IC TC4SU69F
IC101	8-759-209-15	s	IC TC4SU69F
IC200	8-752-334-55	s	IC CXD1175AM
IC201	8-752-334-55	s	IC CXD1175AM
IC202	8-752-329-28	s	IC CXD1151Q
IC203	8-752-334-64	s	IC CXD1171M
IC204	8-752-356-84	s	IC CXD2215AQ
IC206	8-759-079-81	s	IC TC74VHC221AFS
IC207	8-759-184-65	s	IC TC4W66FU
IC208	8-759-030-16	s	IC MC34182M
IC209	8-759-100-94	s	IC UPC358G2-E2
IC210	8-759-096-87	s	IC TC7WU04FU
IC211	8-759-079-81	s	IC TC74VHC221AFS
IC212	8-759-079-81	s	IC TC74VHC221AFS
IC213	8-759-082-61	s	IC TC4W53FU
IC301	8-759-082-61	s	IC TC4W53FU
L1	1-412-064-11	s	INDUCTOR 100uH
L2	1-412-064-11	s	INDUCTOR 100uH
L3	1-412-058-11	s	INDUCTOR 10uH
L4	1-408-785-21	s	INDUCTOR CHIP 47uH
L101	1-412-064-11	s	INDUCTOR 100uH
L103	1-408-797-11	s	INDUCTOR CHIP 470uH
L104	1-408-797-11	s	INDUCTOR CHIP 470uH
L105	1-412-064-11	s	INDUCTOR 100uH
L106	1-412-064-11	s	INDUCTOR 100uH
L200	1-412-064-11	s	INDUCTOR 100uH
L201	1-410-377-31	s	INDUCTOR, CHIP 4.7uH
L202	1-412-064-11	s	INDUCTOR 100uH
L203	1-410-377-31	s	INDUCTOR, CHIP 4.7uH
L204	1-412-064-11	s	INDUCTOR 100uH
L205	1-412-064-11	s	INDUCTOR 100uH
L206	1-412-064-11	s	INDUCTOR 100uH
L207	1-412-064-11	s	INDUCTOR 100uH
LV200	1-409-984-11	s	COIL, VAR 8.2uH
Q1	8-729-905-18	s	TRANSISTOR DTC144EU
Q2	8-729-905-18	s	TRANSISTOR DTC144EU
Q3	8-729-117-32	s	TRANSISTOR 2SC4177
Q5	8-729-117-32	s	TRANSISTOR 2SC4177
Q6	8-729-117-32	s	TRANSISTOR 2SC4177
Q7	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q8	8-729-117-72	s	TRANSISTOR 2SC4178
Q9	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q10	8-729-905-18	s	TRANSISTOR DTC144EU
Q11	8-729-117-72	s	TRANSISTOR 2SC4178
Q12	8-729-905-12	s	TRANSISTOR DTA144EU
Q13	8-729-117-32	s	TRANSISTOR 2SC4177
Q101	8-729-117-72	s	TRANSISTOR 2SC4178
Q106	8-729-117-72	s	TRANSISTOR 2SC4178
Q107	8-729-117-72	s	TRANSISTOR 2SC4178

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Ref. No. or Q'ty	Part No.	SP	Description
Q108	8-729-109-44	s	TRANSISTOR 2SK94
Q109	8-729-109-44	s	TRANSISTOR 2SK94
Q110	8-729-109-44	s	TRANSISTOR 2SK94
Q111	8-729-109-44	s	TRANSISTOR 2SK94
Q112	8-729-117-72	s	TRANSISTOR 2SC4178
Q114	8-729-117-72	s	TRANSISTOR 2SC4178
Q115	8-729-117-72	s	TRANSISTOR 2SC4178
Q116	8-729-117-72	s	TRANSISTOR 2SC4178
Q117	8-729-905-12	s	TRANSISTOR DTA144EU
Q118	8-729-905-12	s	TRANSISTOR DTA144EU
Q120	8-729-117-32	s	TRANSISTOR 2SC4177
Q121	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q122	8-729-117-32	s	TRANSISTOR 2SC4177
Q123	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q131	8-729-109-44	s	TRANSISTOR 2SK94
Q132	8-729-109-44	s	TRANSISTOR 2SK94
Q133	8-729-109-44	s	TRANSISTOR 2SK94
Q134	8-729-109-44	s	TRANSISTOR 2SK94
Q153	8-729-209-07	s	TRANSISTOR 2SC4213B
Q154	8-729-209-07	s	TRANSISTOR 2SC4213B
Q155	8-729-117-32	s	TRANSISTOR 2SC4177
Q156	8-729-117-72	s	TRANSISTOR 2SC4178
Q157	8-729-117-72	s	TRANSISTOR 2SC4178
Q158	8-729-109-44	s	TRANSISTOR 2SK94
Q159	8-729-109-44	s	TRANSISTOR 2SK94
Q160	8-729-109-44	s	TRANSISTOR 2SK94
Q161	8-729-109-44	s	TRANSISTOR 2SK94
Q200	8-729-117-32	s	TRANSISTOR 2SC4177
Q201	8-729-117-16	s	TRANSISTOR 2SA1611
Q202	8-729-117-32	s	TRANSISTOR 2SC4177
Q203	8-729-117-32	s	TRANSISTOR 2SC4177
Q204	8-729-117-32	s	TRANSISTOR 2SC4177
Q205	8-729-118-56	s	TRANSISTOR 2SK852
Q206	8-729-904-41	s	TRANSISTOR FMY3
Q207	8-729-117-32	s	TRANSISTOR 2SC4177
Q208	8-729-117-16	s	TRANSISTOR 2SA1611
Q209	8-729-117-32	s	TRANSISTOR 2SC4177
Q210	8-729-117-32	s	TRANSISTOR 2SC4177
Q211	8-729-117-32	s	TRANSISTOR 2SC4177
Q212	8-729-118-56	s	TRANSISTOR 2SK852
Q213	8-729-904-41	s	TRANSISTOR FMY3
Q214	8-729-117-16	s	TRANSISTOR 2SA1611
Q215	8-729-117-16	s	TRANSISTOR 2SA1611
Q303	8-729-807-51	s	TRANSISTOR 2SD1623
R1	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R2	1-218-293-11	s	METAL, CHIP 24K 5% 1/16W
R3	1-216-835-11	s	METAL, CHIP 15K 5% 1/16W
R4	1-216-840-11	s	METAL, CHIP 39K 5% 1/16W
R5	1-218-866-11	s	METAL, CHIP 6.2K 5% 1/16W
R6	1-218-732-11	s	METAL, CHIP 47K 0.50% 1/16W
R7	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R8	1-216-830-11	s	METAL, CHIP 5.6K 5% 1/16W
R9	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R10	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R11	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R13	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R17	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R18	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R19	1-216-826-11	s	METAL, CHIP 2.7K 5% 1/16W

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(VDA-11 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R20	1-216-824-11	s	METAL, CHIP 1.8K 5% 1/16W
R21	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R22	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R23	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R24	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R25	1-216-838-11	s	METAL, CHIP 27K 5% 1/16W
R26	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R27	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R28	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R29	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R30	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R31	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R32	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R33	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R34	1-216-864-11	s	METAL, CHIP 0-OHM
R35	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R36	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R45	1-216-805-11	s	METAL, CHIP 47 5% 1/16W
R101	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R102	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R103	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R104	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R105	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R106	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R107	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R108	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R109	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R110	1-216-816-11	s	METAL, CHIP 390 5% 1/16W
R111	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R112	1-216-816-11	s	METAL, CHIP 390 5% 1/16W
R113	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R114	1-216-816-11	s	METAL, CHIP 390 5% 1/16W
R115	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R116	1-216-816-11	s	METAL, CHIP 390 5% 1/16W
R117	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R118	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R119	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R120	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R121	1-216-840-11	s	METAL, CHIP 39K 5% 1/16W
R122	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R123	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R124	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R125	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R126	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R127	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R128	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R129	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R130	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R131	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R132	1-218-289-11	s	METAL, CHIP 510 5% 1/16W
R133	1-218-289-11	s	METAL, CHIP 510 5% 1/16W
R134	1-218-288-11	s	METAL, CHIP 300 5% 1/16W
R136	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R138	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R140	1-218-716-11	s	METAL, CHIP 10K 0.50% 1/16W
R141	1-218-716-11	s	METAL, CHIP 10K 0.50% 1/16W
R142	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R143	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R144	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R145	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W

(VDA-11 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R146	1-216-812-11	s	METAL, CHIP 180 5% 1/16W
R147	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R148	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R149	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R150	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R151	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R160	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R161	1-216-818-11	s	METAL, CHIP 560 5% 1/16W
R162	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R163	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R164	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R165	1-216-830-11	s	METAL, CHIP 5.6K 5% 1/16W
R166	1-216-819-11	s	METAL, CHIP 680 5% 1/16W
R167	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R168	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R169	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R170	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R171	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R172	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R173	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R174	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R180	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R181	1-216-797-11	s	METAL, CHIP 10 5% 1/16W
R182	1-216-826-11	s	METAL, CHIP 2.7K 5% 1/16W
R183	1-216-797-11	s	METAL, CHIP 10 5% 1/16W
R184	1-216-826-11	s	METAL, CHIP 2.7K 5% 1/16W
R185	1-216-864-11	s	METAL, CHIP 0-OHM
R186	1-216-789-11	s	METAL, CHIP 2.2 5% 1/16W
R187	1-216-789-11	s	METAL, CHIP 2.2 5% 1/16W
R188	1-216-789-11	s	METAL, CHIP 2.2 5% 1/16W
R189	1-216-789-11	s	METAL, CHIP 2.2 5% 1/16W
R190	1-216-864-11	s	METAL, CHIP 0-OHM
R191	1-216-816-11	s	METAL, CHIP 390 5% 1/16W
R200	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R201	1-216-831-11	s	METAL, CHIP 6.8K 5% 1/16W
R202	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R203	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R204	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R205	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R206	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R207	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R208	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R209	1-216-815-11	s	METAL, CHIP 330 5% 1/16W
R210	1-218-858-11	s	METAL, CHIP 3K 0.50% 1/16W
R211	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R212	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R213	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R214	1-218-870-11	s	METAL, CHIP 9.1K 0.50% 1/16W
R215	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R216	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R217	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R218	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R220	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R221	1-216-831-11	s	METAL, CHIP 6.8K 5% 1/16W
R222	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R223	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R224	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R225	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R226	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R227	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(VDA-11 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R228	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R229	1-216-815-11	s	METAL, CHIP 330 5% 1/16W
R230	1-218-858-11	s	METAL, CHIP 3K 0.50% 1/16W
R231	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R232	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R233	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R234	1-218-870-11	s	METAL, CHIP 9.1K 0.50% 1/16W
R235	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R236	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R237	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R238	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R239	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R241	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R242	1-218-704-11	s	METAL, CHIP 3.3K 0.50% 1/16W
R243	1-218-883-11	s	METAL, CHIP 33K 0.5% 1/16W
R244	1-218-724-11	s	METAL, CHIP 22K 0.50% 1/16W
R245	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R247	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R248	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R251	1-218-874-11	s	METAL, CHIP 13K 0.50% 1/16W
R252	1-218-708-11	s	METAL, CHIP 4.7K 0.50% 1/16W
R253	1-218-684-11	s	METAL, CHIP 470 0.50% 1/16W
R254	1-218-710-11	s	METAL, CHIP 5.6K 0.50% 1/16W
R255	1-218-684-11	s	METAL, CHIP 470 0.50% 1/16W
R256	1-218-874-11	s	METAL, CHIP 13K 0.50% 1/16W
R257	1-218-732-11	s	METAL, CHIP 47K 0.50% 1/16W
R258	1-218-881-11	s	METAL, CHIP 27K 0.50% 1/16W
R259	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R260	1-218-716-11	s	METAL, CHIP 10K 0.50% 1/16W
R261	1-218-676-11	s	METAL, CHIP 220 0.50% 1/16W
R262	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R263	1-218-735-11	s	METAL, CHIP 62K 0.50% 1/16W
R264	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R265	1-218-845-11	s	METAL, CHIP 820 0.50% 1/16W
R266	1-218-881-11	s	METAL, CHIP 27K 0.50% 1/16W
R267	1-218-881-11	s	METAL, CHIP 27K 0.50% 1/16W
R268	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R269	1-216-840-11	s	METAL, CHIP 39K 5% 1/16W
R270	1-216-856-11	s	METAL, CHIP 820K 5% 1/16W
R271	1-216-856-11	s	METAL, CHIP 820K 5% 1/16W
R280	1-247-855-11	s	CARBON 10K 5% 1/4W
R304	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R305	1-216-826-11	s	METAL, CHIP 2.7K 5% 1/16W
RV1	1-237-035-11	s	RES, ADJ, METAL 5K
RV2	1-237-035-11	s	RES, ADJ, METAL 5K
RV3	1-237-034-11	s	RES, ADJ, METAL 2K
RV4	1-237-039-11	s	RES, ADJ, METAL 100K
RV5	1-237-034-11	s	RES, ADJ, METAL 2K
RV6	1-237-035-11	s	RES, ADJ, METAL 5K
RV7	1-237-037-11	s	RES, ADJ, METAL 20K
RV10	1-237-034-11	s	RES, ADJ, METAL 2K
RV101	1-237-035-11	s	RES, ADJ, METAL 5K
RV102	1-237-035-11	s	RES, ADJ, METAL 5K
RV103	1-237-035-11	s	RES, ADJ, METAL 5K
RV104	1-237-035-11	s	RES, ADJ, METAL 5K
RV105	1-237-032-11	s	RES, ADJ, METAL 500
RV107	1-237-033-11	s	RES, ADJ, METAL 1K
RV108	1-237-034-11	s	RES, ADJ, METAL 2K
RV200	1-237-033-11	s	RES, ADJ, METAL 1K

(VDA-11 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
RV201	1-237-033-11	s	RES, ADJ, METAL 1K
RV202	1-237-034-11	s	RES, ADJ, METAL 2K
RV203	1-237-033-11	s	RES, ADJ, METAL 1K
RV204	1-237-034-11	s	RES, ADJ, METAL 2K
RV206	1-237-037-11	s	RES, ADJ, METAL 20K
RV207	1-237-037-11	s	RES, ADJ, METAL 20K
RV208	1-237-035-11	s	RES, ADJ, METAL 5K
RV209	1-237-035-11	s	RES, ADJ, METAL 5K
RV210	1-237-035-11	s	RES, ADJ, METAL 5K
TH200	1-809-308-21	s	THERMISTER (CHIP)
X200	1-760-109-21	s	CRYSTAL 10.738635MHz

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

VF-50 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8271-332-A	o	MOUNTED CIRCUIT BOARD, VF-50
C2	1-135-125-21	s	TANTALUM, CHIP 33uF 20% 10V
C8	1-163-115-00	s	CERAMIC, CHIP 82PF 5% 50V
C13	1-131-374-00	s	TANTALUM 33uF 10% 16V
C14	1-131-374-00	s	TANTALUM 33uF 10% 16V
C15	⚠1-136-980-11	s	FILM 0.0015uF 5% 100V
C16	1-136-683-11	s	FILM 0.0056uF 5% 100V
C21	1-164-350-11	s	CERAMIC 470PF 10% 1KV
C22	1-126-233-11	s	ELECT 22uF 20% 50V
C23	1-163-833-00	s	CERAMIC, CHIP 0.068uF 25V
C24	1-131-365-00	s	TANTALUM 10uF 10% 20V
C35	1-136-683-11	s	FILM 0.0056uF 5% 100V
C37	1-163-037-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C46	1-126-176-11	s	ELECT 220uF 20% 10V
C47	1-124-455-00	s	ELECT 100uF 20% 16V
C49	1-163-243-11	s	CERAMIC 47PF 5% 50V
C51	1-163-018-00	s	CERAMIC, CHIP 0.0056uF 5% 50V
C53	1-131-347-00	s	TANTALUM 1uF 10% 35V
CN1	1-580-534-11	o	PIN, CONNECTOR (PC BOARD) 10P
CN2	1-580-535-11	o	PIN, CONNECTOR (PC BOARD) 12P
CN4	1-506-470-11	o	CONNECTOR, 5P, MALE
CN5	1-506-470-11	o	CONNECTOR, 5P, MALE
CN6	1-506-467-11	o	CONNECTOR, 2P, MALE
CN7	1-580-532-11	o	PIN, CONNECTOR (PC BOARD) 6P
CV1	1-141-448-21	s	CAP, ADJ 40PF
D1	8-719-985-53	s	DIODE HZS4ALL
D2	8-719-800-76	s	DIODE 1SS226
D3	8-719-900-95	s	DIODE V09G
D5	8-719-901-19	s	DIODE V11N
D6	8-719-900-95	s	DIODE V09G
D7	8-719-400-18	s	DIODE MA152WK
D8	8-719-400-18	s	DIODE MA152WK
D9	8-719-800-76	s	DIODE 1SS226
D10	8-719-800-76	s	DIODE 1SS226
D11	8-719-400-18	s	DIODE MA152WK
D12	8-719-933-47	s	DIODE HZS7B2L
D13	8-719-104-34	s	DIODE 1S2836
D14	8-719-901-33	s	DIODE 1SS133
DL1	1-415-487-11	s	DELAY LINE 140nS
IC1	⚠8-759-300-28	s	IC HA11423MP
IC2	8-759-100-94	s	IC UPC358G2
IC3	8-759-209-57	s	IC TC4S69F
IC4	8-759-209-54	s	IC TC4S01F
L2	⚠1-459-899-11	s	COIL, HORIZONTAL LINEARITY
L3	1-410-716-31	s	INDUCTOR CHIP 82uH
Q1	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q2	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q3	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q4	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q5	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q6	8-729-105-37	s	TRANSISTOR 2SC3360
Q7	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q8	8-729-042-51	s	TRANSISTOR 2SK1254L
Q9	8-729-042-51	s	TRANSISTOR 2SK1254L
Q10	8-729-105-37	s	TRANSISTOR 2SC3360

(VF-50 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q11	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q12	8-729-216-22	s	TRANSISTOR 2SA1162
Q13	8-729-175-72	s	TRANSISTOR 2SC2757-T33
Q14	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q15	8-729-216-22	s	TRANSISTOR 2SA1162
Q16	8-729-141-48	s	TRANSISTOR 2SB624-BV345
Q17	8-729-109-44	s	TRANSISTOR 2SK94
Q18	8-729-216-22	s	TRANSISTOR 2SA1162
R3	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
R4	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R5	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R6	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R8	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R10	1-216-657-11	s	METAL, CHIP 1.8K 0.5% 1/10W
R11	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R12	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R14	1-216-637-11	s	METAL, CHIP 270 0.5% 1/10W
R15	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R16	1-216-639-11	s	METAL, CHIP 330 0.5% 1/10W
R17	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R19	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R20	1-216-643-11	s	METAL, CHIP 470 0.5% 1/10W
R22	1-216-657-11	s	METAL, CHIP 1.8K 0.5% 1/10W
R23	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R25	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R26	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R27	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R28	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R29	1-215-387-00	s	METAL FILM 39 1% 1/4W
R32	1-216-698-11	s	METAL, CHIP 91K 0.5% 1/10W
R43	1-216-669-11	s	METAL, CHIP 5.6K 0.5% 1/10W
R46	1-215-490-00	s	METAL 750K 1% 1/6W
R50	⚠1-216-085-00	s	METAL, CHIP 33K 5% 1/10W
R51	⚠1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R53	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R79	1-216-681-11	s	METAL, CHIP 18K 0.5% 1/10W
R81	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R82	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R85	1-216-668-11	s	METAL, CHIP 5.1K 0.5% 1/10W
R86	1-216-693-11	s	METAL, CHIP 56K 0.5% 1/10W
R87	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R91	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R92	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R93	1-216-644-11	s	METAL, CHIP 510 0.5% 1/10W
R102	1-215-830-11	s	METAL, FILM 100K 1% 1/8W
RV1	1-237-035-11	s	RES, ADJ, METAL 5K
RV2	1-237-035-11	s	RES, ADJ, METAL 5K
RV3	1-237-035-11	s	RES, ADJ, METAL 5K
RV4	1-237-041-11	s	RES, ADJ, METAL 500K
RV5	1-237-035-11	s	RES, ADJ, METAL 5K
RV6	1-237-031-11	s	RES, ADJ, METAL 200
RV7	1-237-032-11	s	RES, ADJ, METAL 500
RV8	1-237-032-11	s	RES, ADJ, METAL 500
RV9	1-237-038-11	s	RES, ADJ, METAL 50K
T1	⚠1-439-419-12	s	TRANSFORMER, FLYBACK
VDR1	1-806-497-00	s	VARISTOR ERZ-C05DK220

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

VP-24 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6711-932-B	o	MOUNTED CIRCUIT BOARD, VP-24
1pc	3-724-706-01	o	PLATE (VP-24), ORNAMENTAL
1pc	3-724-753-01	o	RING
1pc	7-688-001-12	s	W 2, MIDDLE
5pcs	3-729-061-01	s	SCREW (M2X4.5) (TYPE 1)
C1	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C2	1-126-398-11	s	ELECT, CHIP 4.7uF 20% 35V
C3	1-126-401-11	s	ELECT, CHIP 1uF 20% 50V
C4	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C20	1-163-251-11	s	CERAMIC 100PF 5% 50V
C26	1-163-229-11	s	CERAMIC 12PF 5% 50V
C27	1-163-239-11	s	CERAMIC 33PF 5% 50V
C50	1-163-251-11	s	CERAMIC 100PF 5% 50V
C56	1-163-229-11	s	CERAMIC 12PF 5% 50V
C57	1-163-239-11	s	CERAMIC 33PF 5% 50V
C81	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C83	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C102	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C103	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C104	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C106	1-163-263-11	s	CERAMIC 330PF 5% 50V
C107	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C109	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C110	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C112	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C121	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C126	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C127	1-126-398-11	s	ELECT, CHIP 4.7uF 20% 35V
C128	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C129	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C141	1-163-237-11	s	CERAMIC 27PF 5% 50V
C147	1-163-227-11	s	CERAMIC 10PF 5% 50V
C148	1-163-251-11	s	CERAMIC 100PF 5% 50V
C149	1-126-401-11	s	ELECT, CHIP 1uF 20% 50V
C151	1-163-263-11	s	CERAMIC 330PF 5% 50V
C157	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C161	1-163-237-11	s	CERAMIC 27PF 5% 50V
CN1	1-566-960-11	o	CONNECTOR, 50P, MALE
D1	8-719-404-35	s	DIODE MA141WK
D2	8-719-404-35	s	DIODE MA141WK
D3	8-719-404-35	s	DIODE MA141WK
D4	8-719-404-35	s	DIODE MA141WK
FB21	1-543-309-21	s	BEAD, FERRITE
FB51	1-543-309-21	s	BEAD, FERRITE
FB101	1-543-309-21	s	BEAD, FERRITE
IC1	8-759-112-53	s	IC UPC1663G
IC2	8-759-112-53	s	IC UPC1663G
IC3	8-759-977-69	s	IC CXD1357Q
IC4	8-759-230-99	s	IC TC74HC4053AF
IC5	8-752-002-99	s	IC CX20030-Z
IC6	8-759-209-90	s	IC TC4S71F
IC7	8-759-239-34	s	IC TC74HC4538AF
L21	1-410-703-21	s	INDUCTOR, CHIP 6.8uH
L51	1-410-703-21	s	INDUCTOR, CHIP 6.8uH
L101	1-408-779-31	s	INDUCTOR CHIP 15uH
L121	1-410-717-31	s	INDUCTOR, CHIP 100uH
L122	1-408-781-00	s	CHIP 22uH

(VP-24 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
L123	1-410-722-31	s	INDUCTOR CHIP 270uH
Q1	8-729-141-48	s	TRANSISTOR 2SB624-BV345
Q2	8-729-905-18	s	TRANSISTOR DTC144EU
Q3	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q4	8-729-117-32	s	TRANSISTOR 2SC4177
Q5	8-729-141-48	s	TRANSISTOR 2SB624-BV345
Q8	8-729-109-44	s	TRANSISTOR 2SK94
Q9	8-729-109-44	s	TRANSISTOR 2SK94
Q10	8-729-109-44	s	TRANSISTOR 2SK94
Q11	8-729-109-44	s	TRANSISTOR 2SK94
Q12	8-729-117-72	s	TRANSISTOR 2SC4178
Q13	8-729-117-72	s	TRANSISTOR 2SC4178
Q14	8-729-117-72	s	TRANSISTOR 2SC4178
Q15	8-729-109-44	s	TRANSISTOR 2SK94
Q16	8-729-109-44	s	TRANSISTOR 2SK94
Q17	8-729-109-44	s	TRANSISTOR 2SK94
Q18	8-729-109-44	s	TRANSISTOR 2SK94
Q19	8-729-117-72	s	TRANSISTOR 2SC4178
Q20	8-729-117-72	s	TRANSISTOR 2SC4178
Q21	8-729-117-72	s	TRANSISTOR 2SC4178
Q22	8-729-905-12	s	TRANSISTOR DTA144EU
Q23	8-729-906-33	s	TRANSISTOR DTC114YU
Q25	8-729-906-33	s	TRANSISTOR DTC114YU
Q26	8-729-905-18	s	TRANSISTOR DTC144EU
Q27	8-729-905-18	s	TRANSISTOR DTC144EU
Q28	8-729-905-12	s	TRANSISTOR DTA144EU
Q29	8-729-905-18	s	TRANSISTOR DTC144EU
Q30	8-729-905-18	s	TRANSISTOR DTC144EU
Q31	8-729-117-72	s	TRANSISTOR 2SC4178
Q32	8-729-117-72	s	TRANSISTOR 2SC4178
Q33	8-729-117-72	s	TRANSISTOR 2SC4178
Q34	8-729-117-72	s	TRANSISTOR 2SC4178
Q35	8-729-117-72	s	TRANSISTOR 2SC4178
Q36	8-729-117-72	s	TRANSISTOR 2SC4178
Q37	8-729-117-72	s	TRANSISTOR 2SC4178
Q38	8-729-117-72	s	TRANSISTOR 2SC4178
Q39	8-729-117-72	s	TRANSISTOR 2SC4178
Q40	8-729-905-18	s	TRANSISTOR DTC144EU
Q41	8-729-109-44	s	TRANSISTOR 2SK94
Q42	8-729-109-44	s	TRANSISTOR 2SK94
Q43	8-729-109-44	s	TRANSISTOR 2SK94
Q44	8-729-109-44	s	TRANSISTOR 2SK94
Q45	8-729-109-44	s	TRANSISTOR 2SK94
Q46	8-729-109-44	s	TRANSISTOR 2SK94
Q47	8-729-109-44	s	TRANSISTOR 2SK94
Q48	8-729-109-44	s	TRANSISTOR 2SK94
Q51	8-729-117-72	s	TRANSISTOR 2SC4178
Q52	8-729-117-72	s	TRANSISTOR 2SC4178
Q53	8-729-905-12	s	TRANSISTOR DTA144EU
Q54	8-729-905-18	s	TRANSISTOR DTC144EU
Q55	8-729-906-33	s	TRANSISTOR DTC114YU
Q56	8-729-905-18	s	TRANSISTOR DTC144EU
Q57	8-729-905-12	s	TRANSISTOR DTA144EU
Q58	8-729-905-18	s	TRANSISTOR DTC144EU
Q59	8-729-905-18	s	TRANSISTOR DTC144EU
Q60	8-729-905-12	s	TRANSISTOR DTA144EU
Q61	8-729-117-72	s	TRANSISTOR 2SC4178
Q62	8-729-905-18	s	TRANSISTOR DTC144EU

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(VP-24 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R1	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R2	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R3	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R4	1-216-831-11	s	METAL, CHIP 6.8K 5% 1/16W
R5	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R6	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R7	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R8	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R9	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R21	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R22	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R23	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R24	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R25	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R26	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R27	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R28	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R29	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R30	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R31	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R32	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R33	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R34	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R37	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R38	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R39	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R40	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R41	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R42	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R43	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R44	1-216-807-11	s	METAL, CHIP 68 5% 1/16W
R45	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R46	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R47	1-216-811-11	s	METAL, CHIP 150 5% 1/16W
R51	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R52	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R53	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R54	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R55	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R56	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R57	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R58	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R59	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R60	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R61	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R62	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R63	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R64	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R67	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R68	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R69	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R70	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R71	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R72	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R73	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R74	1-216-807-11	s	METAL, CHIP 68 5% 1/16W
R75	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R76	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W

(VP-24 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R80	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R81	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R82	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R83	1-216-847-11	s	METAL, CHIP 150K 5% 1/16W
R84	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R85	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R86	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R87	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R89	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R90	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R91	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R92	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R93	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R94	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R95	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R96	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R97	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R98	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R99	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R100	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R101	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R102	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R103	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R104	1-216-820-11	s	METAL, CHIP 820 5% 1/16W
R105	1-216-864-11	s	METAL, CHIP 0-OHM
R106	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R107	1-215-433-00	s	METAL, CHIP 3.3K
R108	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R109	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R110	1-216-831-11	s	METAL, CHIP 6.8K 5% 1/16W
R111	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R112	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R113	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R114	1-216-815-11	s	METAL, CHIP 330 5% 1/16W
R115	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R116	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R117	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R118	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R119	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R121	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R122	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R123	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R124	1-216-831-11	s	METAL, CHIP 6.8K 5% 1/16W
R125	1-216-819-11	s	METAL, CHIP 680 5% 1/16W
R126	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R127	1-216-828-11	s	METAL, CHIP 3.9K 5% 1/16W
R128	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R129	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R130	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R131	1-216-828-11	s	METAL, CHIP 3.9K 5% 1/16W
R132	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R133	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R134	1-216-807-11	s	METAL, CHIP 68 5% 1/16W
R135	1-216-823-11	s	METAL, CHIP 1.5K 5% 1/16W
R136	1-216-818-11	s	METAL, CHIP 560K 5% 1/16W
R137	1-216-864-11	s	METAL, CHIP 0-OHM
R141	1-216-847-11	s	METAL, CHIP 150K 5% 1/16W
R142	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R143	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(VP-24 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R144	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R145	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R146	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R147	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R148	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R149	1-216-824-11	s	METAL, CHIP 1.8K 5% 1/16W
R150	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R151	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R152	1-216-819-11	s	METAL, CHIP 680 5% 1/16W
R153	1-216-847-11	s	METAL, CHIP 150K 5% 1/16W
R154	1-216-834-11	s	METAL, CHIP 12K 5% 1/16W
R155	1-216-853-11	s	METAL, CHIP 470K 5% 1/16W
R156	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R157	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R158	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R159	1-216-853-11	s	METAL, CHIP 470K 5% 1/16W
R160	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R161	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R162	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R163	1-216-864-11	s	METAL, CHIP 0-OHM
R164	1-216-834-11	s	METAL, CHIP 12K 5% 1/16W
R165	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R166	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R168	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R171	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R172	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R201	1-216-819-11	s	METAL, CHIP 680 5% 1/16W
R202	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R203	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
RV21	1-230-868-11	s	RES, ADJ, METAL 2.2K
RV23	1-230-868-11	s	RES, ADJ, METAL 2.2K
RV25	1-230-868-11	s	RES, ADJ, METAL 2.2K
RV27	1-230-868-11	s	RES, ADJ, METAL 2.2K
RV51	1-230-868-11	s	RES, ADJ, METAL 2.2K
RV53	1-230-868-11	s	RES, ADJ, METAL 2.2K
RV55	1-230-868-11	s	RES, ADJ, METAL 2.2K
RV57	1-230-868-11	s	RES, ADJ, METAL 2.2K
RV101	1-230-868-11	s	RES, ADJ, METAL 2.2K
RV102	1-230-868-11	s	RES, ADJ, METAL 2.2K
RV141	1-230-870-11	s	RES, ADJ, METAL 10K
S1	1-571-275-11	s	SWITCH, SLIDE

VR-70 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-569-193-11	s	CONTACT
1pc	1-569-199-11	o	PLUG HOUSING, 6P
1pc	1-625-553-13	o	PRINTED CIRCUIT BOARD, VR-70
CN1	1-506-485-11	o	CONNECTOR, 6P, MALE
RV1	1-230-337-11	s	RES, VAR, CARBON 10K
RV2	1-230-337-11	s	RES, VAR, CARBON 10K
RV3	1-228-456-00	s	RES, ADJ, METAL 1K

VR-77 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-625-554-13	o	PRINTED CIRCUIT BOARD, VR-77
RV1	1-223-165-00	s	RES, ADJ, WIREWOUND 10K

VR-149 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-564-832-11	o	CONTACT
1pc	1-580-582-11	o	HOUSING, 12P
1pc	1-580-599-11	o	CONTACT, FEMALE, AWG26-30
1pc	1-643-708-11	o	PRINTED CIRCUIT BOARD, VR-149
R4	1-216-691-11	s	METAL, CHIP 47K 0.5% 1/10W
RV1	1-238-290-11	s	RES, VAR, CARBON 1K
RV2	1-238-296-11	s	RES, VAR, CARBON 10K
RV3	1-238-293-11	s	RES, VAR, CARBON 10K
RV4	1-238-296-11	s	RES, VAR, CARBON 10K

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

FRAME

Ref. No. or Q'ty	Part No.	SP	Description
	1-464-995-21	s	CONVERTER, DC-DC (CD-89)
	1-466-158-13	s	CONVERTER UNIT, DC-DC
	⚠ 1-546-092-11	s	1.5" CRT ASSY (J)
	⚠ 1-546-092-31	s	1.5" CRT ASSY (UC)
	1-940-613-14	s	HARNESS, SUB (BATT)
	1-940-619-11	o	HARNESS, SUB (ADP)
	1-940-628-11	o	HARNESS, SUB (KY)
	1-950-039-11	s	HARNESS (VF CABLE-2)
	1-625-891-11	s	WIRE, FLEXIBLE CARD 20P (FL-45)
	1-625-892-11	s	WIRE, FLEXIBLE CARD 20P (FL-46)
	1-625-895-11	s	WIRE, FLEXIBLE CARD 12P (FL-57)
	8-759-947-34	s	IC LM35DZ "TEMPERATURE SENSING"
C001	1-136-189-00	s	CAP, METALIZED FILM 0.1uF
CN1 (DC/DC CONVERTER)			
	1-562-152-11	o	HOUSING, 7P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN1 (to CN-400 BOARD)			
	1-565-123-11	o	HOUSING, 4P
	1-565-164-21	o	CONTACT, FEMALE, AWG26-28
CN1 (to IF-298 BOARD)			
	1-562-156-11	o	HOUSING, 11P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN1 (to LD-21 BOARD)			
	1-562-151-11	o	HOUSING, 6P
	1-564-026-00	s	CONTACT, FEMALE, AWG26-30
CN1 (to PA-155 BOARD)			
	1-562-151-11	o	HOUSING, 6P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN1 (to SW-291 BOARD)			
	1-562-147-11	s	HOUSING, 2P
	1-564-026-00	s	CONTACT, FEMALE, AWG26-30
CN1 (to SW-357 BOARD)			
	1-562-150-11	s	HOUSING, 5P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN2 (to CN-400 BOARD)			
	1-565-126-11	o	HOUSING, CONNECTOR 7P
	1-565-164-21	o	CONTACT, FEMALE, AWG26-28
CN2 (to IF-298 BOARD)			
	1-565-129-11	o	HOUSING 10P
	1-565-164-11	o	CONTACT, FEMALE, AWG26-28
CN2 (to PS-162 BOARD)			
	1-543-157-00	s	BEAD, FERRITE
	1-562-255-00	o	HOUSING, 5P
	1-562-260-21	o	CONTACT, FEMALE AWG24-28
CN2 (to SW-220 BOARD)			
	1-562-743-11	o	HOUSING, 10P
	1-563-869-11	o	CONTACT, FEMALE, AWG26-30
CN3 (to DR-124 BOARD)			
	1-562-154-11	o	HOUSING, 9P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN3 (to IF-298 BOARD)			
	1-565-133-11	o	HOUSING, 14P
	1-565-164-21	o	CONTACT, FEMALE, AWG26-28
CN3 (to PS-162 BOARD)			
	1-543-298-11	s	BEAD, FERRITE
	1-562-148-11	s	HOUSING, 3P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN4 (to IF-298 BOARD)			
	1-565-133-11	o	HOUSING, 14P
	1-565-164-21	o	CONTACT, FEMALE, AWG26-28
CN4 (to PS-162 BOARD)			
	1-543-298-11	s	BEAD, FERRITE
	1-562-148-11	s	HOUSING, 3P

(FRAME)

Ref. No. or Q'ty	Part No.	SP	Description
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN5 (to IF-298 BOARD)			
	1-562-153-11	o	HOUSING, 8P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN5 (to PS-162 BOARD)			
	1-562-257-00	o	HOUSING, CONNECTOR 8P
	1-562-260-21	o	CONTACT, FEMALE AWG24-28
CN6 (to TB-5 BOARD)			
	1-562-151-11	o	HOUSING, 6P
	1-564-026-00	s	CONTACT, FEMALE, AWG26-30
CN7 (to PS-162 BOARD)			
	1-543-298-11	s	BEAD, FERRITE
	1-562-252-00	o	HOUSING, 2P
	1-562-260-21	o	CONTACT, FEMALE, AWG24-28
CN10 (to PS-162 BOARD)			
	1-562-254-00	o	HOUSING, 4P
	1-562-260-21	o	CONTACT, FEMALE AWG24-28
CN10 (to TC-48A BOARD)			
	1-569-199-11	o	PLUG HOUSING, 6P
	1-569-193-11	s	CONTACT
CN11 (to TC-48A BOARD)			
	1-562-147-11	s	HOUSING, 2P
	1-564-026-00	s	CONTACT, FEMALE, AWG26-30
CN22 (to MB-317P BOARD)			
	1-543-298-11	s	BEAD, FERRITE
	1-563-869-11	o	CONTACT, FEMALE, AWG26-30
	1-563-874-11	o	HOUSING, 12P
CN23 (to MB-317P BOARD)			
	1-569-196-41	o	HOUSING, 3P
	1-569-193-11	s	CONTACT
CN24 (to MB-317P BOARD)			
	1-562-150-11	s	HOUSING, 5P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN25 (to MB-317P BOARD)			
	1-543-298-11	s	BEAD, FERRITE
	1-562-148-11	s	HOUSING, 3P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN50 (to MB-317P BOARD)			
	1-563-875-11	o	HOUSING, 14P
	1-563-869-11	o	CONTACT, FEMALE, AWG26-30
CN52 (to MB-317P BOARD)			
	1-562-151-11	o	HOUSING, 6P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN53 (to MB-317P BOARD)			
	1-562-149-11	s	HOUSING, 4P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN54 (to MB-317P BOARD)			
	1-563-876-11	s	HOUSING, 16P
	1-563-869-11	o	CONTACT, FEMALE, AWG26-30
CN56 (to MB-317P BOARD)			
	1-562-147-11	s	HOUSING, 2P
	1-564-026-00	s	CONTACT, FEMALE, AWG26-30
CN57 (to MB-317P BOARD)			
	1-562-150-11	s	HOUSING, 5P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

(FRAME)

Ref. No. or Q'ty	Part No.	SP	Description
CN58 (to MB-317P BOARD)			
	1-563-873-11	o	HOUSING, 10P
	1-563-869-11	o	CONTACT, FEMALE, AWG26-30
CN60 (to MB-317P BOARD)			
	1-562-257-00	o	HOUSING, CONNECTOR 8P
	1-562-260-21	o	CONTACT, FEMALE AWG24-28
CN61 (to MB-317P BOARD)			
	1-562-148-11	s	HOUSING, 3P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN62 (to MB-317P BOARD)			
	1-562-149-11	s	HOUSING, 4P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN001	1-565-764-11	s	CONNECTOR ASSY, BNC "VIDEO OUT-2"
CN002	1-561-233-21	s	CONNECTOR, 6P, FEMALE "REMOTE"
CN004	1-564-603-11	s	CONNECTOR (WITH DC SW) 4P, MALE "EXT +12V"
CN005	1-565-072-11	s	CONNECTOR, 4P, FEMALE "DC OUT"
CN006	1-563-029-21	s	CONNECTOR, XLR 3P, FEMALE "CH-1"(UC)
	1-563-030-21	s	CONNECTOR, XLR 3P, FEMALE "CH-1"(J)
CN007	1-563-029-21	s	CONNECTOR, XLR 3P, FEMALE "CH-2"(UC)
	1-563-030-21	s	CONNECTOR, XLR 3P, FEMALE "CH-2"(J)
CN011	1-563-029-21	s	CONNECTOR, XLR 3P, FEMALE "MIC"
CN014	1-565-764-11	s	CONNECTOR ASSY, BNC "VIDEO OUT-1"
CN015	1-561-781-21	s	CONNECTOR, BNC, FEMALE "GEN LOCK VIDEO IN"
CN016	1-561-781-11	s	CONNECTOR, BNC, FEMALE "TC IN"
CN017	1-561-781-11	s	CONNECTOR, BNC, FEMALE "TC OUT"
CN101	1-565-051-11	o	CONNECTOR, 20P, FEMALE "VF"
CN102	1-562-221-21	s	CONNECTOR, 12P, FEMALE "LENS"
CN110F	1-561-518-00	o	HOUSING, ILG 6P, FEMALE
	1-560-372-00	o	CONTACT, AWG22-28
CN110M	1-562-855-11	o	CONNECTOR, IL-M 6P, MALE
	1-564-092-11	o	CONTACT, FEMALE, IL-M, AWG24-28
CN501 (to MB-317P BOARD)			
	1-562-150-11	s	HOUSING, 5P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN502 (to MB-317P BOARD)			
	1-562-151-11	o	HOUSING, 6P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN503 (to MB-317P BOARD)			
	1-562-147-11	s	HOUSING, 2P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN504 (to MB-317P BOARD)			
	1-562-148-11	s	HOUSING, 3P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN505 (to MB-317P BOARD)			
	1-562-152-11	o	HOUSING, 7P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN506 (to MB-317P BOARD)			
	1-562-147-11	s	HOUSING, 2P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN507 (to MB-317P BOARD)			
	1-562-147-11	s	HOUSING, 2P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
CN508 (to MB-317P BOARD)			
	1-565-128-11	o	HOUSING, CONNECTOR 9P
	1-565-164-21	o	CONTACT, FEMALE, AWG26-28
CN509 (to MB-317P BOARD)			
	1-562-147-11	s	HOUSING, 2P
	1-563-088-11	o	CONTACT, FEMALE, AWG24-30
FB001	1-543-157-00	s	BEAD, FERRITE
FB002	1-543-157-00	s	BEAD, FERRITE
H001	8-825-749-02	s	HEAD, AU PPS244-2103
H002	8-825-560-41	s	HEAD, CTL RS-253-21
H003	8-825-772-61	s	HEAD, ERASE EF291-21A
M001	8-835-308-01	s	MOTOR, DC LN18-S1N1B
M002	8-835-313-01	s	MOTOR, DC U-19A
SP001	1-503-293-00	s	SPEAKER
R001	1-249-404-00	s	CARBON 82 5% 1/4W
SW002	1-553-448-00	s	SWITCH, TOGGLE "POWER"

Please see pages 13-52 and 13-53 for the part numbers of capacitors and resistors that are not listed in the parts list.

13-4. PACKING MATERIALS AND ACCESSORIES

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-6772-374-C	s	BELT ASSY, SHOULDER
1pc	A-7520-314-A	o	MOUNTED CIRCUIT BOARD, EX-148
1pc	1-542-099-11	s	MICROPHONE
1pc	3-707-636-01	s	SCREEN ASSY, WIND (CM-BVW200)
1pc	3-725-262-03	s	COVER, RAIN

13-5. OPTIONAL FIXTURE

Ref. No. or Q'ty	Part No.	SP	Description
	J-6001-820-A	o	DRUM ECCENTRICITY GAUGE (3)
	J-6001-830-A	o	DRUM ECCENTRICITY GAUGE (2)
	J-6026-100-A	o	RESOLUTION CHART
	J-6026-130-B	o	GRAY SCALE CHART
	J-6029-140-B	o	PATTERN BOX, PTB-500
	J-6080-003-C		FWD BACK TENSION MEASUREMENT CASSETTE
	J-6086-570-A		PLATE, PARALLEL
			SSET
	J-6152-450-A		WIRE CLEARANCE CHECK GAUGE
	J-6321-500-A		TAPE GUIDE ADJUSTMENT DRIVER
	J-6321-880-A		CASSETTE DUMMY COVER
	J-6325-110-A		TORQUE DRIVER BIT (FOR M1.4)
	J-6325-360-A		FLATNESS CHECK TOOL
	J-6325-380-A		TORQUE DRIVER BIT (FOR M2)
	J-6325-400-A		TORQUE DRIVER BIT (FOR 3Kg)
	J-6325-530-A		DRUM ECCENTRICITY GAUGE (6)
	J-6326-120-A		HEXAGON BIT
	J-6332-290-A		SERVO REMOTE CONTROL TOOL
	J-6335-710-A		REC CURRENT ADJUSTMENT TOOL
	J-6335-730-A		VIDEO SIGNAL INPUT BOARD
	J-6335-740-A		EXTENSION HARNESS
	7-732-050-20		TENSION SCALE (50g FULL SCALE)
	7-732-902-00		INSPECTION MIRROR
	8-960-096-01		ALIGNMENT TAPE, CR2-1B (UC)
	8-960-096-41		ALIGNMENT TAPE, CR5-1B (UC)
	8-960-097-44		ALIGNMENT TAPE, CR5-2A (UC)
	8-960-097-45		ALIGNMENT TAPE, CR8-1A (UC)
	9-911-053-00	s	THICKNESS GAUGE

SECTION 14
CHANGED PARTS

NOTE: The numbers identified by making with are matching with each serial numbers

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AFM-6 BOARD

OLD)	CV1	1-141-370-11	s	CAP, CHIP TRIMMER
204)	CV1	1-141-369-52	s	CAP, CHIP TRIMMER
OLD)	CV2	1-141-370-11	s	CAP, CHIP TRIMMER
204)	CV2	1-141-369-52	s	CAP, CHIP TRIMMER
OLD)	CV3	1-141-370-11	s	CAP, CHIP TRIMMER
204)	CV3	1-141-369-52	s	CAP, CHIP TRIMMER
OLD)	CV4	1-141-370-11	s	CAP, CHIP TRIMMER
204)	CV4	1-141-369-52	s	CAP, CHIP TRIMMER
OLD)	CV101	1-141-370-11	s	CAP, CHIP TRIMMER
204)	CV101	1-141-369-52	s	CAP, CHIP TRIMMER
OLD)	CV102	1-141-370-11	s	CAP, CHIP TRIMMER
204)	CV102	1-141-369-52	s	CAP, CHIP TRIMMER
OLD)	CV103	1-141-370-11	s	CAP, CHIP TRIMMER
204)	CV103	1-141-369-52	s	CAP, CHIP TRIMMER
OLD)	CV104	1-141-370-11	s	CAP, CHIP TRIMMER
204)	CV104	1-141-369-52	s	CAP, CHIP TRIMMER
OLD)	R205	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
505)	R205	1-216-820-11	s	METAL, CHIP 820 5% 1/16W

AT-49B BOARD

OLD)	C43	NOT IN USE.		
203)	C43	1-135-227-11	s	TANTAL 100uF 20% 6.3V
OLD)	IC18	8-759-084-02	s	IC AM27C64-BVW400AV3.02
203)	IC18	8-759-086-69	o	IC AM27C64-BVW400AV3.03
OLD)	R100	NOT IN USE.		
203)	R100	1-249-388-11	s	CARBON 3.9 5% 1/4W
OLD)	RV1	1-241-447-21	s	RES, ADJ, CERMET 5K
205)	RV1	1-237-035-11	s	RES, ADJ, METAL 5K
OLD)	RV4	1-241-447-21	s	RES, ADJ, CERMET 5K
205)	RV4	1-237-035-11	s	RES, ADJ, METAL 5K
OLD)	IC18	8-759-086-69	o	IC AM27C64-BVW400AV3.03
207)	IC18	8-759-157-75	o	IC AM27C64-BVW400AV3.15
OLD)	IC14	8-759-181-81	s	IC HD6305Y0E95P
607)	IC14	8-759-447-43	s	IC HD6305Y0F24P
OLD)	IC17	8-752-330-59	s	IC CXK1011P
607)	IC17	8-752-330-60	s	IC CXK1012P

AU-97 BOARD

OLD)	IC2	8-759-630-28	s	IC M5236ML
208)	IC2	8-759-095-59	s	IC M5237ML

CN-771 BOARD

OLD)	1pc	7-627-553-47	s	SCREW,PRECISION +P 2X4
201)	2pcs	7-627-553-47	s	SCREW,PRECISION +P 2X4

201) Serial No. 10028 and higher (BVW-400A;UC)
Serial No. 30031 and higher (BVW-400A;J)
202) Serial No. 10033 and higher (BVW-400A;UC)
Serial No. 30061 and higher (BVW-400A;J)
203) Serial No. 10063 and higher (BVW-400A;UC)
Serial No. 30091 and higher (BVW-400A;J)
204) Serial No. 10078 and higher (BVW-400A;UC)
Serial No. 30111 and higher (BVW-400A;J)
205) Serial No. 10118 and higher (BVW-400A;UC)
Serial No. 30121 and higher (BVW-400A;J)
206) Serial No. 10148 and higher (BVW-400A;UC)
Serial No. 30181 and higher (BVW-400A;J)
207) Serial No. 10158 and higher (BVW-400A;UC)
Serial No. 30216 and higher (BVW-400A;J)
208) Serial No. 10191 and higher (BVW-400A;UC)
Serial No. 30245 and higher (BVW-400A;J)
209) Serial No. 10230 and higher (BVW-400A;UC)
Serial No. 30261 and higher (BVW-400A;J)
210) Serial No. 10268 and higher (BVW-400A;UC)
Serial No. 30271 and higher (BVW-400A;J)
301) Serial No. 30351 and higher (BVW-400A;J)
302) Serial No. 30396 and higher (BVW-400A;J)
304) Serial No. 10368 and higher (BVW-400A;UC)
Serial No. 30421 and higher (BVW-400A;J)
411) Serial No. 10829 and higher (BVW-400A;UC)
Serial No. 30791 and higher (BVW-400A;J)
505) Serial No. 11054 and higher (BVW-400A;UC)
Serial No. 30936 and higher (BVW-400A;J)
605) Serial No. 31126 and higher (BVW-400A;J)
607) Serial No. 11414 and higher (BVW-400A;UC)
Serial No. 31176 and higher (BVW-400A;J)
712) Serial No. 11484 and higher (BVW-400A;UC)
Serial No. 31452 and higher (BVW-400A;J)

DR-124 BOARD

OLD)	RV1	1-241-449-21	s	RES, ADJ, CERMET 20K
205)	RV1	1-237-037-11	s	RES, ADJ, METAL 20K
OLD)	RV2	1-241-449-21	s	RES, ADJ, CERMET 20K
205)	RV2	1-237-037-11	s	RES, ADJ, METAL 20K
OLD)	RV3	1-241-449-21	s	RES, ADJ, CERMET 20K
205)	RV3	1-237-037-11	s	RES, ADJ, METAL 20K

VDA-11 BOARD

OLD)	RV203	1-237-037-11	s	RES, ADJ, METAL 20K
302)	RV203	1-237-038-11	s	RES, ADJ, METAL 50K (for J)
304)	RV203	1-237-038-11	s	RES, ADJ, METAL 50K (for UC)

EN-79U BOARD

OLD)	CV1	1-141-347-11	s	CAP, TRIMMER 10PF
206)	CV1	1-141-422-11	s	CAP, ADJ
OLD)	RV1	1-241-446-11	s	RES, ADJ, CERMET 2K
205)	RV1	1-237-034-11	s	RES, ADJ, METAL 2K
OLD)	RV2	1-241-446-11	s	RES, ADJ, CERMET 2K
205)	RV2	1-237-034-11	s	RES, ADJ, METAL 2K
OLD)	RV3	1-241-446-11	s	RES, ADJ, CERMET 2K
205)	RV3	1-237-034-11	s	RES, ADJ, METAL 2K
OLD)	RV4	1-241-448-11	s	RES, ADJ, CERMET 10K
205)	RV4	1-237-036-11	s	RES, ADJ, METAL 10K
OLD)	RV5	1-241-447-21	s	RES, ADJ, CERMET 5K
205)	RV5	1-237-035-11	s	RES, ADJ, METAL 5K

OLD)	RV6	1-241-448-11	s	RES, ADJ, CERMET 10K
205)	RV6	1-237-036-11	s	RES, ADJ, METAL 10K
OLD)	RV8	1-241-446-11	s	RES, ADJ, CERMET 2K
205)	RV8	1-237-034-11	s	RES, ADJ, METAL 2K
OLD)	RV11	1-241-445-21	s	RES, ADJ, CERMET 1K
205)	RV11	1-237-033-11	s	RES, ADJ, METAL 1K
OLD)	RV12	1-241-445-21	s	RES, ADJ, CERMET 1K
205)	RV12	1-237-033-11	s	RES, ADJ, METAL 1K
OLD)	RV13	1-241-448-11	s	RES, ADJ, CERMET 10K
205)	RV13	1-237-036-11	s	RES, ADJ, METAL 10K
OLD)	RV14	1-241-449-21	s	RES, ADJ, CERMET 20K
205)	RV14	1-237-037-11	s	RES, ADJ, METAL 20K
OLD)	RV15	1-241-446-11	s	RES, ADJ, CERMET 2K
205)	RV15	1-237-034-11	s	RES, ADJ, METAL 2K
OLD)	RV18	1-241-445-21	s	RES, ADJ, CERMET 1K
205)	RV18	1-237-033-11	s	RES, ADJ, METAL 1K
OLD)	RV19	1-241-445-21	s	RES, ADJ, CERMET 1K
205)	RV19	1-237-033-11	s	RES, ADJ, METAL 1K
OLD)	RV20	1-241-444-21	s	RES, ADJ, CERMET 500
205)	RV20	1-237-032-11	s	RES, ADJ, METAL 500
OLD)	RV21	1-241-444-21	s	RES, ADJ, CERMET 500
205)	RV21	1-237-032-11	s	RES, ADJ, METAL 500

FE-4 BOARD

OLD)	CP1	1-424-101-11	s	TRANSFORMER, FE
205)	CP1	1-424-511-11	s	TRANSFORMER, FE

FL-45 BOARD

OLD)	1pc	1-625-891-11	s	PRINTED CIRCUIT BOARD, FL-45 FLEXIB
210)	1pc	1-625-891-13	s	PRINTED CIRCUIT BOARD, FL-45 FLEXIB

FL-46 BOARD

OLD)	1pc	1-625-892-11	s	PRINTED CIRCUIT BOARD, FL-46 FLEXIB
210)	1pc	1-625-892-13	s	PRINTED CIRCUIT BOARD, FL-46 FLEXIB

FL-57 BOARD

OLD)	1pc	1-625-895-11	s	PRINTED CIRCUIT BOARD, FL-57 FLEXIB
206)	1pc	1-625-895-21	s	PRINTED CIRCUIT BOARD, FL-57 FLEXIB

IE-30 BOARD

OLD)	CV1	1-141-370-11	s	CAP, CHIP TRIMMER
206)	CV1	1-141-448-21	s	CAP, ADJ
OLD)	CV2	1-141-311-11	s	CAR, TRIMMER 20PF
206)	CV2	1-141-423-61	s	CAP, ADJ
OLD)	CV3	1-141-311-11	s	CAR, TRIMMER 20PF
206)	CV3	1-141-423-61	s	CAP, ADJ
OLD)	RV1	1-241-446-11	s	RES, ADJ, CERMET 2K
205)	RV1	1-237-034-11	s	RES, ADJ, METAL 2K
OLD)	RV2	1-241-444-21	s	RES, ADJ, CERMET 500
205)	RV2	1-237-032-11	s	RES, ADJ, METAL 500
OLD)	RV3	1-241-447-21	s	RES, ADJ, CERMET 5K
205)	RV3	1-237-035-11	s	RES, ADJ, METAL 5K
OLD)	RV6	1-241-447-21	s	RES, ADJ, CERMET 5K
205)	RV6	1-237-035-11	s	RES, ADJ, METAL 5K
OLD)	RV10	1-241-447-21	s	RES, ADJ, CERMET 5K
205)	RV10	1-237-035-11	s	RES, ADJ, METAL 5K
OLD)	RV12	1-241-450-11	s	RES, ADJ, CERMET 50
205)	RV12	1-237-038-11	s	RES, ADJ, METAL 50
OLD)	RV13	1-241-444-21	s	RES, ADJ, CERMET 500
205)	RV13	1-237-032-11	s	RES, ADJ, METAL 500
OLD)	RV14	1-241-445-21	s	RES, ADJ, CERMET 1K
205)	RV14	1-237-033-11	s	RES, ADJ, METAL 1K

IE-31 BOARD

OLD)	RV17	1-241-444-21	s	RES, ADJ, CERMET 500
205)	RV17	1-237-032-11	s	RES, ADJ, METAL 500
OLD)	RV18	1-241-444-21	s	RES, ADJ, CERMET 500
205)	RV18	1-237-032-11	s	RES, ADJ, METAL 500
OLD)	RV19	1-241-447-21	s	RES, ADJ, CERMET 5K
205)	RV19	1-237-035-11	s	RES, ADJ, METAL 5K

LP-66 BOARD

OLD)	1pc	NOT IN USE.		
203)	1pc	3-722-474-05	o	BRACKET, LP
OLD)	2pcs	NOT IN USE.		
203)	2pcs	7-627-556-37	s	SCREW,PRECISION +P2.6X4 TYP

MB-317 BOARD

OLD)	IC102	8-759-996-43	s	IC RC4558PS
205)	IC102	8-759-700-43	s	IC NJM4558M
OLD)	IC121	8-759-996-43	s	IC RC4558PS
205)	IC121	8-759-700-43	s	IC NJM4558M
OLD)	IC122	8-759-996-43	s	IC RC4558PS
205)	IC122	8-759-700-43	s	IC NJM4558M
OLD)	IC401	8-759-700-07	s	IC NJM2903M
205)	IC401	8-759-981-65	s	IC LM2903M
OLD)	C158	NOT IN USE.		
206)	C158	1-162-765-11	s	CERAMIC 1000PF
OLD)	C159	NOT IN USE.		
206)	C159	1-131-381-00	s	TANTAL 47uF 10V
OLD)	C160	NOT IN USE.		
206)	C160	1-131-381-00	s	TANTAL 47uF 10V

PR-176U BOARD

OLD)	R2	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
204)	R2	1-216-637-11	s	METAL, CHIP 270 0.5% 1/10W
OLD)	R98	1-216-043-00	s	METAL, CHIP 560 5% 1/10W
204)	R98	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
OLD)	R100	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
204)	R100	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
OLD)	R177	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
204)	R177	1-216-647-11	s	METAL, CHIP 680 0.5% 1/10W
OLD)	R299	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
202)	R299	1-216-061-00	s	METAL, CHIP 3.3K 5% 1/10W
OLD)	R342	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
204)	R342	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
OLD)	R343	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
204)	R343	1-216-642-11	s	METAL, CHIP 430 0.5% 1/10W
OLD)	R344	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
204)	R344	1-216-650-11	s	METAL, CHIP 910 0.5% 1/10W
OLD)	S4	1-570-857-11	s	SWITCH, SLIDE
207)	S4	1-570-373-12	s	SWITCH, SLIDE
OLD)	S5	1-570-857-11	s	SWITCH, SLIDE
207)	S5	1-570-373-12	s	SWITCH, SLIDE
OLD)	1pc	A-8276-298-A	o	MOUNTED CIRCUIT BOARD, PR-177
301)	1pc	1-810-067-11	s	BP-020 (for J)
304)	1pc	1-810-067-11	s	BP-020 (for UC)
OLD)	1pc	A-8276-299-A	o	MOUNTED CIRCUIT BOARD, PR-178
301)	1pc	1-810-066-11	s	BP-021 (for J)
304)	1pc	1-810-066-11	s	BP-021 (for UC)

PS-162B BOARD

OLD)	1pc	A-6723-360-A	o	MOUNTED CIRCUIT BOARD, PS-162J (J)
206)	1pc	A-8271-735-A	o	MOUNTED CIRCUIT BOARD, PS-162B (J)
OLD)	1pc	A-6723-368-A	o	MOUNTED CIRCUIT BOARD, PS-162 (UC)
206)	1pc	A-8271-736-A	o	MOUNTED CIRCUIT BOARD, PS-162B (UC)
OLD)	CN6	1-695-903-11	o	CONNECTOR, 12P (FOR PS-162B)
209)	CN6	1-695-903-21	o	CONNECTOR, 12P (FOR PS-162B)
OLD)	D1	8-719-911-54	s	DIODE UG05E
210)	D1	8-719-911-55	s	DIODE UG05G
OLD)	D4	8-719-911-54	s	DIODE UG05E
210)	D4	8-719-911-55	s	DIODE UG05G

SG-152 BOARD

OLD)	RV1	1-241-449-21	s	RES, ADJ, CERMET 20K
205)	RV1	1-237-037-11	s	RES, ADJ, METAL 20K
OLD)	RV3	1-241-449-21	s	RES, ADJ, CERMET 20K
205)	RV3	1-237-037-11	s	RES, ADJ, METAL 20K
OLD)	RV4	1-241-445-21	s	RES, ADJ, CERMET 1K
205)	RV4	1-237-033-11	s	RES, ADJ, METAL 1K
OLD)	R40	1-216-055-00	s	CHIP 1.8K 5% 1/10WK
207)	R40	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W

SG-157 BOARD

OLD)	RV8	1-241-449-21	s	RES, ADJ, CERMET 20K
205)	RV8	1-237-037-11	s	RES, ADJ, METAL 20K

SV-97A BOARD

OLD)	IC3	8-759-700-07	s	IC NJM2903M
205)	IC3	8-759-981-65	s	IC LM2903M
OLD)	IC7	8-759-700-07	s	IC NJM2903M
205)	IC7	8-759-981-65	s	IC LM2903M
OLD)	IC15	8-759-700-07	s	IC NJM2903M
205)	IC15	8-759-981-65	s	IC LM2903M
OLD)	IC17	8-759-700-07	s	IC NJM2903M
205)	IC17	8-759-981-65	s	IC LM2903M
OLD)	IC19	8-759-700-07	s	IC NJM2903M
205)	IC19	8-759-981-65	s	IC LM2903M

SW-220 BOARD

OLD)	D1	8-719-815-55	s	DIODE 1S1555
605)	D1	8-719-901-33	s	DIODE 1SS133 (FOR BVW-400A:J)
OLD)	D2	8-719-815-55	s	DIODE 1S1555
605)	D2	8-719-901-33	s	DIODE 1SS133 (FOR BVW-400A:J)

SY-117C BOARD

OLD)	IC6	8-759-201-61	s	IC TC40H004F
208)	IC6	8-759-927-29	s	IC SN74HCU04ANS
OLD)	IC4	8-759-940-47	s	IC S-8054HN-CB
712)	IC4	8-759-542-91	s	IC S-80840ANUP-ED4

TC-48B BOARD

OLD)	1pc	A-6713-368-A	o	MOUNTED CIRCUIT BOARD, TC-48A
206)	1pc	A-8271-733-A	o	MOUNTED CIRCUIT BOARD, TC-48B

VA-104 BOARD

OLD)	CV1	1-141-370-11	s	CAP, CHIP TRIMMER
206)	CV1	1-141-448-21	s	CAP, ADJ
OLD)	CV2	1-141-370-11	s	CAP, CHIP TRIMMER
206)	CV2	1-141-448-21	s	CAP, ADJ
OLD)	R215	NOT IN USE.		
203)	R215	1-215-421-00	s	METAL 1K 1% 1/6W
207)	R215	1-216-651-11	s	METAL, CHIP 1K 1% 1/6W
OLD)	RV2	1-241-449-21	s	RES, ADJ, CERMET 20K
205)	RV2	1-237-037-11	s	RES, ADJ, METAL 20K
OLD)	RV3	1-241-448-11	s	RES, ADJ, CERMET 10K
205)	RV3	1-237-036-11	s	RES, ADJ, METAL 10K
OLD)	RV6	1-241-449-21	s	RES, ADJ, CERMET 20K
205)	RV6	1-237-037-11	s	RES, ADJ, METAL 20K
OLD)	RV7	1-241-448-11	s	RES, ADJ, CERMET 10K
205)	RV7	1-237-036-11	s	RES, ADJ, METAL 10K
OLD)	RV10	1-241-449-21	s	RES, ADJ, CERMET 20K
205)	RV10	1-237-037-11	s	RES, ADJ, METAL 20K
OLD)	RV11	1-241-448-11	s	RES, ADJ, CERMET 10K
205)	RV11	1-237-036-11	s	RES, ADJ, METAL 10K
OLD)	RV15	1-241-446-11	s	RES, ADJ, CERMET 2K
205)	RV15	1-237-034-11	s	RES, ADJ, METAL 2K
OLD)	RV16	1-241-446-11	s	RES, ADJ, CERMET 2K
205)	RV16	1-237-034-11	s	RES, ADJ, METAL 2K
OLD)	RV17	1-241-446-11	s	RES, ADJ, CERMET 2K
205)	RV17	1-237-034-11	s	RES, ADJ, METAL 2K
OLD)	RV18	1-241-448-11	s	RES, ADJ, CERMET 10K
205)	RV18	1-237-036-11	s	RES, ADJ, METAL 10K
OLD)	RV19	1-241-448-11	s	RES, ADJ, CERMET 10K
205)	RV19	1-237-036-11	s	RES, ADJ, METAL 10K
OLD)	RV20	1-241-448-11	s	RES, ADJ, CERMET 10K
205)	RV20	1-237-036-11	s	RES, ADJ, METAL 10K
OLD)	RV21	1-241-449-21	s	RES, ADJ, CERMET 20K
205)	RV21	1-237-037-11	s	RES, ADJ, METAL 20K
OLD)	RV22	1-241-449-21	s	RES, ADJ, CERMET 20K
205)	RV22	1-237-037-11	s	RES, ADJ, METAL 20K
OLD)	C94	NOT IN USE		
209)	C94	1-102-945-00	s	CERAMIC 8PF
OLD)	C95	NOT IN USE		
209)	C95	1-102-945-00	s	CERAMIC 8PF
OLD)	C96	NOT IN USE		
209)	C96	1-102-945-00	s	CERAMIC 8PF
OLD)	R216	NOT IN USE		
209)	R216	1-215-442-00	s	METAL, CHIP 7.5K
OLD)	R217	NOT IN USE		
209)	R217	1-215-442-00	s	METAL, CHIP 7.5K
OLD)	R218	NOT IN USE		
209)	R218	1-215-442-00	s	METAL, CHIP 7.5K

VDA-11 BOARD

OLD)	CV1	1-141-311-11	s	CAR, TRIMMER 20PF
204)	CV1	1-141-423-61	s	CAP, ADJ
OLD)	CV2	1-141-311-11	s	CAR, TRIMMER 20PF
204)	CV2	1-141-423-61	s	CAP, ADJ
OLD)	CV3	1-141-311-11	s	CAR, TRIMMER 20PF
204)	CV3	1-141-423-61	s	CAP, ADJ
OLD)	CV4	1-141-311-11	s	CAR, TRIMMER 20PF
204)	CV4	1-141-423-61	s	CAP, ADJ
OLD)	CV11	1-141-311-11	s	CAR, TRIMMER 20PF
204)	CV11	1-141-423-61	s	CAP, ADJ
OLD)	CV12	1-141-311-11	s	CAR, TRIMMER 20PF
204)	CV12	1-141-423-61	s	CAP, ADJ
OLD)	CV13	1-141-311-11	s	CAR, TRIMMER 20PF
204)	CV13	1-141-423-61	s	CAP, ADJ
OLD)	CV14	1-141-311-11	s	CAR, TRIMMER 20PF
204)	CV14	1-141-423-61	s	CAP, ADJ
OLD)	1pc	A-6711-933-B	o	MOUNTED CIRCUIT BOARD, VDA-11
505)	1pc	A-6711-933-C	o	MOUNTED CIRCUIT BOARD, VDA-11

VF-50 BOARD

OLD)	RV1	1-241-447-21	s	RES, ADJ, CERMET 5K
205)	RV1	1-237-035-11	s	RES, ADJ, METAL 5K
OLD)	RV2	1-241-447-21	s	RES, ADJ, CERMET 5K
205)	RV2	1-237-035-11	s	RES, ADJ, METAL 5K
OLD)	RV3	1-241-447-21	s	RES, ADJ, CERMET 5K
205)	RV3	1-237-035-11	s	RES, ADJ, METAL 5K
OLD)	RV5	1-241-447-21	s	RES, ADJ, CERMET 5K
205)	RV5	1-237-035-11	s	RES, ADJ, METAL 5K
OLD)	RV6	1-241-443-11	s	RES, ADJ, CERMET 200
205)	RV6	1-237-031-11	s	RES, ADJ, METAL 200
OLD)	RV7	1-241-444-21	s	RES, ADJ, CERMET 500
205)	RV7	1-237-032-11	s	RES, ADJ, METAL 500
OLD)	RV8	1-241-444-21	s	RES, ADJ, CERMET 500
205)	RV8	1-237-032-11	s	RES, ADJ, METAL 500
OLD)	C16	1-136-287-11	s	FILM 0.0047μF 5% 100V
301)	C16	1-136-683-11	s	FILM 0.0056μF 5% 100V (for J)
304)	C16	1-136-683-11	s	FILM 0.0056μF 5% 100V (for UC)
OLD)	R20	1-216-645-11	s	METAL, CHIP 560 0.5% 1/10W
712)	R20	1-216-643-11	s	METAL, CHIP 470 0.5% 1/10W
OLD)	R23	1-216-673-11	s	METAL, CHIP 8.2K 0.5% 1/10W
712)	R23	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
OLD)	C15	1-136-534-11	s	FILM 0.0027μF 5% 100V
712)	C15	1-136-480-11	s	FILM 0.0015μF 5% 100V

VP-24 BOARD

OLD)	D5	NOT IN USE.		
207)	D5	8-719-911-19	s	DIODE 1SS119
OLD)	R107	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
207)	R107	1-215-433-00	s	METAL, SHIP 3.3K
OLD)	IC5	8-759-932-14	s	IC CX20030-Z
411)	IC5	8-752-002-99	s	IC CX20030-Z